

A HANDBOOK OF NURSING
FOR THE
HOME AND THE HOSPITAL.



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A HANDBOOK OF NURSING.

A
HANDBOOK OF NURSING,

FOR THE
HOME AND THE HOSPITAL.

WITH A
GLOSSARY OF THE MOST COMMON MEDICAL TERMS.

BY
CATHERINE J. WOOD,
LADY SUPERINTENDENT OF THE HOSPITAL FOR SICK CHILDREN,
GREAT ORMOND STREET.

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PREFACE.

IN writing this book it has been my aim to place the standard of nursing on the very highest level, as being the Christian work of Christian women. It has been impossible to avoid treading over the ground already occupied by former writers on this subject, but I have endeavoured to introduce the moral and religious aspect of the question, to point out the special dangers and temptations that beset the nurse's path, and to record in unmistakable language my own conviction that the first requisite for a good nurse is a high Christian standard of life and action.

The fierce light of public opinion is beginning to beat upon our medical charities, surmisings and questionings as to the appropriation or misappropriation of these vast sums of money are surging in the public mind, the idea is slowly being realised that the treatment of the sick poor is an expensive and costly article, and those who have to find the money are not quite sure that they have all they pay for. The conviction is gaining ground that the Hospitals exist either for the maintenance of an

overgrown staff, for the glorification of charitable committees, for the scientific delectation of medical officers, for the pampering of over-paid under-trained nurses, or for the pauperising of the working class. Take a walk around any of our palatial buildings, you will find the wealth lavished on the apartments of the staff, and the resources of the establishment strained to meet their exacting demands. Far be it from me to wish that our patients were pampered in the same manner; to inaugurate such a change would be to take them out of their station; but I do hope some day to see the whole staff, managers, doctors, executive, nurses, realising the truth that they are the *servants* of the sick poor, for whose benefit alone they have been called into existence—this will indeed be true Hospital Reform.

When the agitation of public opinion takes a definite course, when the various theories afloat have shaped themselves towards one accurate end, then we may be assured that among those changes that follow will be a re-construction of the nursing staff in our large Hospitals. A better style will be required, an improvement in the status of the nurse will be brought about, but at the same time a more thorough training will be looked for, a higher standard of moral rectitude will be demanded; the nurse will be elevated from the drudge into the intelligent assistant, but if she

has not sought to qualify herself for that post she will be pushed aside or be turned into a hollow sham. It will depend on ourselves whether this reform be initiated in the ranks of our profession, or whether it be forced upon us from without: if the former, it rests with ourselves to make it thorough and complete, by each in our individual sphere determining that we will aim at and reach the very highest standard of Christian nursing, drawing our fellow-nurses up with us, creating around us an atmosphere of high-principled conscientious work; if the latter, expediency will be the motive power, and so the aim will be lower, and the work done weak and faulty in comparison.

Much has already been done towards reforming the nursing profession. It is impossible to shut our eyes to the great work done in the Nightingale School at St. Thomas's, and the thorough training there given; but the fact that that Hospital stands almost alone in its work, that though the work has been going on for so many years, it has not borne more fruit, is a marked comment on my words: the system is not established, the scheme of training not thoroughly digested, the question has not been grappled with by the medical profession through the country, the managing bodies of our great Hospitals are not alive to the evils of the old plan, are not in

earnest in desiring a better. It is a difficult question to face, there are complicated interests involved, the prevailing fear of man rises up in the way, it is a thankless and unpleasant task, and so the eyes are shut and the ears are deaf, and great wrongs are perpetrated, and great scandals exist under the name of charity, which is no charity after all.

If but one nurse is urged by this little book to look upon her profession as something higher than just a means of earning her bread, if only one sister lays it down with her heart strengthened, her courage nerved to meet and act up to her great responsibilities and opportunities, I shall feel that it has not been written in vain; to comfort, cheer, guide, and ennoble that great sisterhood among whom I am only a unit, is a work worthy of all who aim at being Christian women. "Whatsoever thy hand findeth to do, do it with thy might." "Not with eye-service as men-pleasers, but as the servants of Christ, doing the will of God from the heart."

C. J. WOOD.

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A HANDBOOK OF NURSING.

INTRODUCTORY CHAPTER.

IN offering this manual to the nursing profession, the intention is not to supersede the many excellent guides that have been written, but only to present, in a systematic and practical manner, a few hints on the subject; and it will be the aim of the writer to make this book that which it professes to be—a *hand-book* of reference and instruction, more especially for nurses.

The writer has had many years' practical experience in nursing and in training others in that work, and as in nursing an ounce of practice is worth a pound of theory, she is anxious to make some of her experience available for helping others to escape the pitfalls and snares that lie in the path. At the end of this book will be found a small dictionary of the terms most in use in hospital wards, a knowledge of which is necessary to a right understanding of the directions given. The reader is requested to refer to it when in any doubt about the technical terms made use of in these pages.

Before commencing the practical teaching, it may not be out of place to say a few words on nursing in its general aspect. It is becoming a recognised fact in the medical profession that nursing is an important adjunct in the treatment and cure of disease, and that to carry out this a special definite training is required. Every woman may, to a certain extent, be a "born nurse," but it is not every woman who has been trained in habits of patient and careful observation that can recognise the necessity of accurate painstaking definition; and it is especially to develop these qualities that a course of training is required. Unfortunately, a woman's education is not calculated to induce in her mind the power of accurate thought and of concentration on one subject; it is only too true that women are inclined to be superficial and unreliable.

A nurse, to be of use to the doctor, must be able to give an intelligent, trustworthy account of her charge, and beyond that to carry out implicitly his directions; and here strict obedience and often faith are needed, for as she sees only *her* side of the question, she must be often tempted to cavil at the plan of treatment adopted, more particularly if it interferes with the comfort of her patient. Therefore a nurse must remember that her place is to obey, his to direct; and if in this habit of mind

she receives her instructions, a wise doctor will be only too ready to avail himself of her experience by seeking suggestions—only she should remember that these suggestions must not be offered until they are sought, and she must not throw up the case in a fit of disgust if they are disregarded.

The opponents of educated women entering the nursing field allege that they are not obedient, and are too opinionated. This assertion, unhappily, is too true, and it should be the aim of each individual to wipe out this blot by accepting the position as it is; it offers a scope large enough for those powers of tact and management which are looked on as the peculiar prerogative of woman.

To seek the office of nurse is to seek a good work, but care is necessary that the nurse's work be worthy of the office. There is great temptation in the wards of a large hospital to neglect those cases which, in nursing phraseology, are called "uninteresting." When the physician of the day, with a large following, stands at the bedside of some patient the subject of a rare or serious disease, the nurse naturally likes to show herself "well up" in the case, and is anxious to carry out the instructions and treatment prescribed for him. Unfortunately, it has been the demoralising practice in some wards in old days—and I do earnestly hope that it is a

thing of the past—for the physician to make the nurse a money present if she has nursed successfully a patient through a serious illness. But beds are not all filled with severe or curious cases; there is a certain sprinkling of skin disease, paralysis, of other ailments the results of poverty, dirt, intemperance, &c., the treatment of which must be prolonged, is often revolting, and is very trying to the nurse, and, moreover, lacks the moral support of the visit and interest of the medical officer. In such cases determined conscientiousness is needed to resist the inclination to omit or slur over the weary routine—the tiresome poulticing day by day, the perpetual dressings, often with no visible results, and no meed of praise at the end of it all. It is in the thorough painstaking attention to these neglected ones that we must look for the marks of a good nurse. The clever, bright attendant may succeed in hoodwinking the doctor. She has the sharpness to change her poultices just before the clinical rounds, to put on the clean linen for his visits; but the hot poultice and the clean sheets should be eyed with suspicion—they are the marks of a “gay deceiver.”

Let the work be done as in the sight of God, not to win the praises of the medical staff, but as doing heartily unto the Lord that work, that great work, which He has committed into the hands of

the nurse. The fact of its being so difficult to find out a careless nurse acts as an incentive to shirk work. Very often none but the patients can report the inefficient care which they receive, and their mouths are generally closed by fear. Thus it often happens that a dishonest nurse is praised when she deserves censure and dismissal. I use the word *dishonest* advisedly, as best describing that nurse who does her work with eye-service; for to leave a patient's wants unattended to, a child in a state of uncleanness, stimulants, food, or medicine unadministered, dressings or poultices unchanged, or changed only from fear of discovery, is a dishonest act; it is professing to be a nurse whilst neglecting its obligations, and is a sin in the sight of God and man.

Nursing is a grand work, and is essentially woman's work; it approaches very nearly to the daily life of the Master "who went about doing good;" but unless there be brought into it an inexhaustible stock of patience, plenty of cheerfulness and good temper, untiring energy, and unless there is the intention to put the whole heart into the work with the resolution of doing with the might whatsoever the hand finds to do, it would be better to turn to some other employment, for failure as a nurse means discomfort to poor sufferers, injury to health, and perhaps loss of life.

There is much in the daily life of a nurse to blunt her sensibilities. Familiarity with suffering takes from it its reality, the perpetual presence of death robs it of half its mystery and awe ; seek then as an antidote to cultivate a spirit of reverence in the presence of these realities, encourage in yourself and in your patients a veneration for that master piece of mechanism, the human body ; so will you best preserve the spirit of modesty and decency in them and in yourself, and whatever you may see or have to do, by being met in that spirit, will pass you by, untouched and unsullied. Do not debase this great mission by making it minister to a prurient curiosity, or a seeking to inquire into mysteries wisely hidden from us. If you accept everything as it comes quietly, as a part of your daily work, you will then pass through with your womanhood unscathed, and you may incalculably influence and elevate your patients. I seek to magnify my office, and I would aim at placing it on the highest level—that of Christian womanhood ; I would urge every nurse to make it her object to redeem the sisterhood from the scorn and reproach cast upon it of old, so that the name, instead of being a byword for knavery and immorality, should be synonymous with purity, gentleness, and uprightness.

SECTION A.

QUALIFICATIONS OF A NURSE.

1. IT is a popular delusion that every woman is born a nurse. Every woman is not born a cook or a seamstress, therefore why should she be born a nurse? All women share in common the dexterity of the hands, the quickness of perception, the knowledge of the mysteries of domestic life, required for either of these callings, and shall I add the patience to put up with all the little details of these pursuits? But for each and all a special training or instruction is needed, and that required for a nurse must be sought in a hospital, where only sickness in all its varieties is present continuously.

2. *Six* general qualifications are needed to make a thorough nurse—viz., presence of mind, gentleness, accuracy, memory, observation, and forethought. These six should form the groundwork of every woman's education, whatever may be her destined sphere; but, unfortunately, they are so often omitted that much valuable time is lost in developing in the probationer these essentials of a woman's character.

3. This section is intended to aid those who seek either to train themselves or are engaged in the work of training nurses, and it will endeavour to point out the best method of developing these qualifications in the would-be nurses by taking them in detail, and showing how the daily routine of a sick ward can be made available as an instructor on these points.

4. Unfortunately, there is no defined system of training—each teacher does what is right in her own eyes; and there is also a want of definition in the knowledge required of a nurse. In some hospitals a much higher standard of nursing is insisted on, and in others, even in some of our grandest institutions, the nursing is so inefficient and disgraceful that there is no effectual remedy but sweeping out the whole staff and starting afresh. In training our nurses we should aim at making them intelligent, conscientious attendants on the sick, handmaidens to the medical staff, a happy mean between the drudge that does all the dirty work, as in the olden time, and the quasi woman-doctor of modern times—the bane of the sisterhood and the plague of the doctors; and, perhaps, if the nurses more clearly understood their position there would be less complaints of the self-opinionated woman, who will persist in carrying out her own plan of treatment.

5. A nurse's work is to carry out the instructions

given her, to watch her patient with the view of giving an intelligent account of his condition between the periods of the medical officer's visits, to apply efficiently and quickly the necessary remedies, to supply his wants, give him his food, and to handle him with ease and tenderness. Her duty is not to prescribe for him, not to substitute her remedy for the doctor's because she thinks that it may suit his case better, not to omit or change the plan of diet or medicine, not to set up her own judgment. Doctors and nurses often do differ, but the responsibility is not the nurse's, and unless asked directly for her opinion she should hold her peace, or only offer it if she thinks that the doctor is prescribing under a mistaken view of the case or symptom, when she should quietly state her opinion, and then leave the matter alone. A wise doctor will only too gladly accept the real assistance that an experienced conscientious nurse can give him, and will ask and listen to her opinion with deference, without feeling that he is in the least taking her out of her place, and he will leave such an amount of discretionary power in her hands as will make her feel how deep and complete is the responsibility of her office.

6. This has been rather a digression from the immediate subject in hand. To return—I think that it would be a great improvement in the method of

training if the medical staff of each hospital were to draw up a scheme of examination, the successful passing of which should be a guarantee of efficiency, and should qualify the nurse to hold a certificate, and be received as such at any hospital to which she might subsequently apply for employment; providing always that this recommendation be not cancelled by immoral or disorderly conduct, to provide against which the certificate might bear the signatures of the lady superintendents, matrons, or sisters under whom she had worked. The carrying out of the details of the examination ought to be entrusted to the various officials of the staff. For instance, clinical instruction might be given by the senior medical officers in rotation; instruction in elementary anatomy and physiology, by means of lectures, by other members of the staff; in bandaging, and the application of splints, by the resident medical officers; in the proper attention on the sick, by the superintendent of the nurses; and so on. These are only hints thrown out by the way, but surely some scheme of systematic instruction for nurses, by means of lectures and clinical teaching, might be devised which would do away with the present haphazard, uncertain training which is furnished to nurses.

7. And here I would point out a danger into which I fear we are drifting, and that is of making the

nursing of a hospital independent of the medical authority of the hospital. The head of the nursing staff is apt to think that she knows more than the resident officers of the hospital, and to feel that that superior knowledge gives her the right to question their orders and sometimes to substitute her own. Now there is utterly a fault here. There can be no question that a prolonged residence in a hospital gives great experience and knowledge of a most valuable nature ; but this cannot give the right to treat the patients according to individual notions. The responsibility of their treatment rests with the properly qualified medical staff, and any woman, however experienced, taking upon herself these responsibilities is committing a grave error, and is entering upon a course destructive of the peaceful working of the hospital, and also opposed to the employment of intelligent educated women as supervisors of the nursing details.

8. No woman should offer herself for training as a nurse unless she is prepared to do real hard work, to practise incessant self-denial and patience, to submit to a perpetual crossing of her will, to take her daily share in sights and occupations repugnant to every refined and sensitive mind ; but still, if she can make up her mind to all this she will never regret the work that she has undertaken.

9. If she has been already exercising herself in those qualities of intellect that are peculiarly needed in the wards, she will find that she commences her special training half prepared; but if *memory* be defective, *accuracy* and *observation* latent, *forethought* not cultivated, then much preliminary time must be given to developing these qualities. However, let no one despair, for these qualities can be immensely improved even in those very hopeless cases where these precious gifts have not been developed in early life. But supposing that a very backward nurse comes to be trained, how should we set about it?

10. I have generally found that for the first week it is better to leave a raw probationer very much unmolested; by the end of that time she will have shown her peculiar characteristics, and have lost some of that fear and hesitancy that are always present on first entering on a new sphere; then she should be educated in these general details above mentioned, without which she can never become an efficient nurse. Her *memory* is best cultivated by writing down for her a few simple directions which have to be carried out at stated times, and insisting upon her fulfilling them at the exact time. If she fails—as at first she is sure to—she must be made to rectify her omission herself (it ought not to be done by

another nurse), and at the end of the day's work question her as to the fulfilment of these duties at their stated times, encouraging her to confess frankly every omission.

But the way to impress these duties on her mind is to make her come back and do them herself when forgotten. The wearisomeness of this process will impress them on her memory. As the probationer becomes more conversant with her duties, the range of directions may be enlarged, until the routine duties have become second nature.

II. The education should then extend to *forethought*—a most valuable quality, a wonderful help in daily life—and this, likewise, must be developed by degrees. A daily occurrence in a ward is the round of the medical officer, and this may be made a convenient opportunity of teaching. Everything must be prepared for him; after the nurse has been present for a few times she should endeavour to remember what things he is likely to require, and have them in readiness, and by being trusted to get ready for him will learn forethought.

Forethought really is being prepared. If an injection has to be given, beginning it before the time; a dressing to be put on, having all the requirements handy; a bed to be made for a surgical case, trying to forestall all the possible requirements

of the patient ; having in readiness all the ointments, lotions, appliances for the day's work in the wards, and not having to waste time by running first to the dispensary and then to the steward's stores or the linenry at the last moment, exhausting both patience and time together. The sister of the ward can help the nurse very much by going round with her to her different departments, and questioning her as to her supplies and the preparedness of them. A nurse that has forethought will get through her work in much less time, and in a much better temper, than the nurse who commences her daily work in a haphazard kind of way, and, I may also add, with a great saving of friction of temper. The comfort also of the patients is much increased by the forethought of the nurses : to save a sick person the weary perpetual asking for little necessities by as far as possible forestalling his wants is to materially enhance the prospects of recovery ; and it is attention to these little details that mark the distinction between a good nurse and an indifferent one.

12. Next to these two qualifications comes *observation*, and with it *accuracy*; and here we enter upon the more special training required for a nurse. By observation I mean the capacity of carefully noting and remembering the individual characteristics of the diseases and their subjects, the action of the

remedies prescribed, the course of the malady, and peculiarities in the constitution of the patients; and to do this effectively the nurse must be trained in a general knowledge of disease, exercising her own powers of memory.

13. The nurse should first be taken round to the cases by the sister, and the chief points of difference pointed out. Thus the difference in posture in heart disease and typhoid fever; the aspect in pneumonia or pleurisy contrasted with that of phthisis; the appearances characteristic of tubercular meningitis, and so on. Then she should be questioned about the symptoms of each case and the course of the disease through the day, as this will impress them on her mind, and she will learn what are the points of interest in each disease. This is better done by the sister in the first instance, as a nurse is very nervous when first introduced into the wards of a hospital, and is apt to lose her memory and self-possession when confronted by the medical staff; but if she is first trained by the sister until her ideas get somewhat arranged, she will then have a clearer view of her work. She should be taught to listen to questions put by the doctor and the answers received, to put them together in her own mind, and from them to deduce the leading points in the disease; and she should be encouraged to ask the sister questions and

to give her the results of her observations ; but, above all things, she must be made to use her own mind, to think for herself, and not to get her knowledge ready made.

14. United with this power of observation must be *accuracy*. In many cases a nurse is instructed to take observations for the doctor, the value of which she cannot understand, but on the *accuracy* of which will depend the treatment of the case; and, moreover, any want of truthfulness does not stand much chance of being found out. Observations are required of pulse, temperature, secretions, &c., for which the word of the nurse must be taken, and as she seeks for a character either for accuracy or smartness, so will her statements be accurate or the reverse. In answering the questions of the doctors the utmost truthfulness is necessary, not to represent a fact as she *wishes* it to be, but as it *is*. The sister, who is always in the wards, has many more opportunities of testing the accuracy of a statement than the medical officer, whose visits are intermittent, and she can point out the misleading nature of a statement or the distortion of facts.

15. I have left speaking of presence of mind and gentleness till the last, though they stand, as I have placed them, in the forefront of womanly qualifications ; but I want them so to remain in the mind of

the probationer that no other distractions may take the thoughts from them.

Presence of mind is that calm collectedness in the face of danger or in the presence of an emergency that enables the nurse to see at a glance what is required, and with steady nerve to do it. Shall I say that an entire absence of self—self-pleasing, self-love—is the groundwork of presence of mind? I shall not be far wrong in insisting on this. It is the silly women who like to draw attention to themselves, and who scream at a mouse or faint at the sight of blood, that are useless at an operation or in the way at an accident. Let them by a grand effort overcome the timidity of their sex, and think only of helping the sufferer, and then the hysterics and the swooning will be forgotten. A nurse *must* have presence of mind, she must be able to rely upon her nerve, she must be calm when others are flurried, recollect when others are distracted, or she cannot be the aid and comfort that she ought; and let her not aim at hardening her sympathy to attain this, for her hand may be as steady whilst the heart is quivering in unison with the sufferer, and the full eye betrays her ready sensitiveness; but the greatness of his demand on her aid overmasters the one and restrains the other—she forgets herself in helping him.

16. And thus presence of mind leads on to

gentleness; for how can that woman fail in being *gentle* when she is suffering with the sufferer? If she crushes down her sympathy she becomes hard-hearted and hard-handed, regarding the poor patient as some lay-figure without feeling, to be experimented on at her pleasure. Gentleness of the heart will teach gentleness to the hand and to the manners. I can give you no better rule than to put yourself in your patient's place. Your patient, perhaps, wants his pillows shaken or his position changed, and asks you just as you are leaving the ward, off duty; selfishness tempts you to refuse or to comply so hastily that the sick man regrets having asked you. For that minute put yourself in his place—a sick man among strangers, obliged to ask for and to take every little office from cold, unloving hands; the prospect before him of a long restless night, wearied and too weak to move himself; no hope of change from day to day—and then surely your touch will be more gentle, your manner more sympathising, and the hasty words of rebuke will die on your lips. Or you have in your ward a bad wound, which causes intense discomfort to nurse and patient: do not hurry over the dressing with ill-concealed expressions of disgust, handling the limb in a hasty, cross manner; it is bad enough to have to bear such an infliction, you need not add to it. *Do* be careful of the feelings of your

patients ; do not insult by jeering at them, nor draw attention to loathsome defects and ailments ; do not hurt their sensitiveness by coming near to them with a pocket-handkerchief to your nose, or giving audible expression to your disgust ; be gentle in mind towards them, and then you will be gentle in action. A good nurse should be careful for her patients, of their feelings, their tempers, their sufferings, and of herself not at all.

Let no nurse despise the stress laid upon the cultivation of these general qualifications. A determination to make them her own will place her in the front rank of the nursing sisterhood.

SECTION B.

GENERAL TRAINING.

17. WE have now come to the more special details of training that are required for a nurse, by which qualities are developed that are necessary for the efficient discharge of her duties, and first of these we must place *cleanliness* as being most essential to the recovery and comfort of the patients. The most scrupulous cleanliness is required in all that concerns the sick, because the discharges and vapours that come from the patient, being charged with the germs of disease, are directly harmful. And here I would insist upon *absolute* cleanliness—not a clean sheet on the surface and a filthy one underneath; not a great scrubbing and polishing up for the doctor's visit and neglect between whiles; not clean linen put on for the clinical rounds and replaced by dirty after they are over; all this is deceitful, and is "making clean the outside of the cup and platter." If a sheet is clean enough for the patient it should be so for the doctor, and a careful managing nurse should always aim at, and can succeed in, having her patient in such a state that he may be inspected at any time.

18. In carrying out this part of a nurse's training the sister must insist on, and the nurse put up with, the most fidgety particularity, and nothing must be taken for granted, the sister being diligent in making a personal minute inspection of each department of the nurse's work, so as to satisfy herself that no corners are overlooked. It is very difficult, in dealing with the class of patients that frequent our hospitals, to overcome their prejudices against soap and water and fresh air; but personal cleanliness must be insisted on, and a weekly or bi-weekly bath where the nature of the disease admits of it.

In dealing with children it is easier to insist on cleanliness, as the care of their persons is in the hands of the nurse; and also it is the more important to make liberal use of soap and water, to keep their skin free from sores and cracks. This will be more thoroughly treated of in the chapter devoted to children.

19. The nurse's duties are more immediately connected with the cleansing of wounds and sores, and the keeping of their linen and persons clean; and here again the error of fidgety washing must be guarded against. It is a nurse's duty to keep her patient's skin clean and whole, at the least possible cost of exhaustion or movement; but to raise an operation case to wash the back twice a day, or to

change a splint twice a week, when there is no indication that these are needed, is subjecting the patient to useless fatigue, while a little thought and common sense will help the nurse in the care of the case. Some skins will not bear pressure without the softening process of washing, and some will not bear repeated washing and handling; let each individual case be treated by the light it throws on itself, and there will be a great gain of comfort to the patient. This kind of knowledge is only the result of long experience, and should be made available in the training of the nurses.

20. There are a few simple rules, the enforcing of which will conduce to the health and cleanliness of a ward.

21. Everything soiled and dirty should be at once removed from the wards. Foul linen should be put down the shoot provided for the purpose; dressings and poultices should be *burnt* at once; bandages put aside, to be washed or to be burnt. In some hospitals the objectionable practice obtains of sending poultices and dressings down a shoot; over their end let us draw a veil, but report says that they are carted away on to the land. Of the foul, filthy condition of the inside of that shoot it is impossible to draw a picture. Every ward should be provided with a large fire capable of burning the dressings, and the sister should

insist on this being done immediately they are taken from the bed.

22. All vessels intended to receive the discharges from the patient should be kept scrupulously clean, those used for the evacuations being provided with a cover, to be placed on when the patient has made use of it, and so carried away to be emptied; this prevents a trail of fouled air being left by the nurse, and puts a stop to the dirty habit of covering it over with her apron. It is strange how much difficulty there is in inducing nurses to use these covers, but the practice should be insisted on as being wholesome and cleanly.

23. All evacuations should be emptied away immediately, not hidden away in a locker or in a closet until a convenient season, except those to be kept for inspection, which should be put in the place set apart for them, where there must be a free admission of fresh air. These vessels require constant soaking and washing, with an occasional scouring with spirits of salt; an ordinary bottle-brush is the most convenient and effective instrument for cleaning the bed-pans and slipper-pans.

24. All closets need rinsing down every day, and occasionally purifying with chloride of lime; and in using these disinfectants we must be careful not to rely upon them for cleanliness. They are necessary

evils, but can never take the place of fresh air and pure water. To think that foul air can be made wholesome by carbolic acid is a mistake ; its danger is reduced to a minimum, but the germs and particles are still there—it is but putting one smell for another.

25. The back of every patient that is subjected to prolonged pressure requires looking after *most* carefully ; when possible, it should be washed *once* a day and powdered. In the case of a patient who has no control over the evacuations, the skin needs washing at least three times daily, to prevent bed-sores ; and remember that in this case prevention is better than cure, and fouled or wet sheets on a bed are a disgrace to nurse and sister alike. Anything offensive, either in the bed or on the patient, is a thing out of its right place, and should be there and then taken away. More definite rules as to the avoiding and treating of bed-sores will be given in a paragraph under that head.

26. When a splint has been taken off, the limb requires washing, drying, and powdering before it is replaced. This will keep up a healthy action of the skin, and often prevent troublesome eczema.

27. The sister of the ward must steadily set her face against holes and corners of dirt. It is a popular fallacy to think that a place is tidy or clean simply because the unsightliness is poked out of sight.

That was a wise Quaker who said, "If we must have dirt, let us have it in the middle of the room where we can see it;" therefore hunt dirt and untidiness out of all its lurking-places into the middle of the ward, and then it can be cleared away. Dirt is, after all, only a comparative term, and means something very useful out of its right place; and if it be put into a drawer or a box, the lid shut down upon it, do not salve your conscience with the idea that your ward is tidied up—the something is still in the wrong place, and must be exposed to light. Turn out all your cupboards, lockers, &c., every week at least, and get rid of all the hidden abominations. Aim at being tidy out of sight, and what is in sight will take care of itself.

28. It is hardly possible to give minute directions as to the management of the linen. Here there is great scope for careful economy on the part of both nurse and sister. Two nurses with the same allowance of linen and similar requirements will exhibit very different results, the one being bankrupt and her patients untidy, the other with a stock in hand and clean, creditable beds; this is all the result of care and forethought. Unfortunately, nurses take very little heed of the cost of washing, and if they can save themselves trouble by extravagant use of linen, they will; the sister's authority should therefore be interposed, and as she *ought* to know exactly the

requirements of the ward, she should check and overrule extravagance.

29. An economical plan, and one that adds greatly to the comfort of patients who lie long in bed, is to change their top sheet and bed-gown for the night and day. This is a great saving of wear and tear in the case of children.

30. Wards require constant sweeping, and they should be sprinkled with tea-leaves or sprayed to prevent the particles of dust re-settling.

31. Scrubbing is one of the necessary evils of floors; and the plan frequently pursued in large hospitals of doing it before breakfast, when the outer air is heavy with the morning moisture and the vitality of the patients lower than usual, seems to require alteration. The sight of a pail and a scrubber is not pretty; but if it must be, let it be done when it will do the least harm, and that is between breakfast and dinner.

32. Long counterpanes touching the floor should be abolished. They hide nests of iniquity, such as dirty clothes, unemptied vessels, stale food, old boots, &c., preventing a clear view of the ward from end to end, and serving as dust-traps and flue collectors.

33. Vessels kept under the beds are abominations. If they are provided with covers they might

be placed in a cupboard by the side ; but better still that they should be kept out of the ward, then, being received from and given back to the attendant, there is the more likelihood of their being emptied and cleansed.

34. Articles of food, such as milk, beef-tea, eggs, &c., should be kept in the ward kitchen, out of reach of the ward air, and not be left standing for hours by the patient's side, simply to save the nurse the trouble of fetching it fresh from the pantry.

35. Next on our list come two qualifications which are so mutually dependent and intertwined that it will be wisest to bracket them and treat of them together : they are *quietness* and *carefulness*.

36. There are some kind, well-meaning people who drive a sick person nearly wild with their stealthy tread and hushed whispering, and the provoking part is that they do it from such real good-heartedness that courtesy obliges us to hold our peace ; but it is mistaken quietness, more irritating than soothing. A well-trained nurse will go about her work in a decided, deliberate manner, walking steadily and firmly from place to place, putting down everything without jars or collisions ; there will be no hurry, and, on the other hand, there will be no painful effort at maintaining an unnatural stillness. If she has to come to the bedside she will be heard

approaching, so as not to take the patient unawares ; if she has to speak it will be in her natural voice, not straining the sick man's ears to catch an unnatural whisper, or irritating his nerves by keeping up a whispered conversation just within ear-shot. She will allow no chattering or coarse ringing laughter near her patient ; but if conversation be permitted, she will suggest that it be in a clear, distinct tone, so as to amuse and interest the sick person. If only people would exercise a little common sense in such matters they would confer a great benefit on suffering humanity ; but instead thereof, as soon as they come near the sick-room they pull a long face, creep on tip-toe, speak in short uncertain whispers, bring in with them an air of sanctimonious depression, make themselves just as unnatural as they can, doing serious harm to the patient, who has enough real trouble to bear, and requires cheering and enlivening when visited ; while, on the other hand, avoid the visitor who enters the room like a north wind, intent on *rousing* the invalid, as he calls it, while all he effects is to shake his feebly-strung nerves and to exhaust his newly-formed strength. Quietness is the happy mean, which really means—be your natural self, controlled and ordered to suit the sick man's need.

37. Here we glide into the subject of carefulness.

This quality is the opposite of the eager, impulsive, inconsequent nature, tearing through the work, intent on getting it done quickly, and, as must be expected, forgetting or half doing important duties. I should lay great stress on the necessity of *finish* to develop this quality in nurses under training; let everything be done thoroughly, brought to its utmost point of completeness, and this will effectually do away with all hurry. Also teach the nurses to think of but one thing at a time, as if that duty was to occupy the whole day—to give their whole minds to it. Some nurses come into their wards in the morning with a confused idea of a great deal of work to be done through the day; it lies in a tangled heap before them, and they set about half-a-dozen things at once, finishing none, and with their minds occupied with the whole day's work. Remember the day only passes minute by minute, and each has its own work, and the work cannot be done one bit the better by massing it all up together. The great quantity of brain material that is saved by orderly, careful work is wonderful, and the work done will be careful work, because it has received all the thought and attention of which the doer was capable.

38. I shall bracket the two remaining qualifications, as they have a mutual relationship and interdependence—*reliability* and *obedience*. These are

the key-stone and crown of a nurse's character, and without them she is valueless.

39. To enforce obedience a nurse must be taught that she must carry out implicitly all the instructions given her, that any omission or forgetfulness should be promptly and frankly confessed, that her place is essentially to *obey*, and that she must yield her judgment and opinion to those with whom the responsibility rests. An obedient nurse will be a reliable nurse, for the sister will feel confidence in her, and the doctors will trust her. Medicines and stimulants will be given as prescribed; instructions, sometimes irksome and wearisome, faithfully complied with by night as well as by day; and she will never think that a thing does not matter simply because she cannot see the needs-be of it. If, moreover, she acts as in the sight of an ever-present Master, she will add to technical obedience religious conscientiousness, and then indeed will her services be beyond all price.

40. Next on our list we place *promptness*, a quality of mind very essential to a good nurse. It includes presence of mind, forethought, calculation, and a ready accord in action between eyes and hand. In a case of severe hæmorrhage a prompt nurse may save her patient, whilst an unready one may see him dying in her sight.

41. A nurse must be always on the alert whilst on duty; she must train her mind to listen to and distinguish the various sounds around her. There is the laboured quick respiration in typhoid fever—*that* means the onset of pneumonia; there is the harsh metallic ring in diphtheria—*that* points to grave laryngeal danger; there is the quick, catching respiration—*that* means either acute pleurisy or a complication with the heart. The very sounds in a sleeping ward to a trained ear will tell their own tale. A danger signal being given, prompt measures must be taken, and the change reported to the responsible authority.

42. Never let a nurse say to you, "I forgot," or "thought that it would do another time;" delay may mean death, and it is inexcusable. Absorbing books or engrossing work should be forbidden a nurse until she is so trained that no sound or movement will escape her ear. She should be carefully instructed what changes are likely to occur in the cases committed to her care, and their significance, and be ordered to be on the watch for them and to report them. If hæmorrhages occur, what remedies to apply; if vomiting, how to treat it. In the presence of danger she is never to lose her coolness or presence of mind; she should be at hand with the appliances required, and then stand

aside, watchful and observant; her calmness and courage will do much to re-assure the patient and friends. If she be educated into a state of preparedness she is not likely to be taken unawares, and if she knows the relative value of each symptom she will not lose her nerve over an unimportant trifle while neglecting an indication of grave danger.

SECTION C.

WARD TRAINING.

43. IN the foregoing paragraphs we have been dealing more with the mental training of the nurse ; we now come to the mechanical or ward duties required, but though these are spoken of *after* the others, the course of training must combine both at the same time—the performance of the one will help to develop the other.

44. It is not well, in introducing a nurse to her ward, to overwhelm her with minute directions or details. It is all a strange, bewildering world to her, and her mind has enough to do within the first few days to accustom itself to the ever-shifting scene before her. It is better to give her a few simple duties, such as bed-making, cleaning up, &c., which will serve as land-marks to which her mind can direct itself ; and strongly do I reprobate the plan of placing a probationer immediately under a nurse : the result often is that the nurse saves herself at the expense of her slavey, and the bad habits of the ward become perpetuated, as it were, from father to son. The probationer should receive her instructions directly

from the sister of the ward, from whom only should she take her orders.

45. The ward duties may be briefly summarised as consisting of bed-making, giving medicines, food, and stimulants, washing a patient, dressing wounds, taking a temperature, making a poultice, stating a case, applying remedies, attending on medical officers, and besides, attending to the cleanliness and neatness of the ward, the details of which duties are differently arranged in different hospitals.

As these special duties will be treated under their own headings, they will only be dealt with here in a summary manner. (See paragraphs No. 61—143).

46. The sister should have the nurse working under her immediate eye, so that faults may be pointed out and haste and slovenliness corrected, and when indicated, let the reason why and the needs be pointed out. For instance, when changing the under-sheets whilst the patient is in bed, show why the patient is kept in the horizontal posture : viz., that it is an economy of strength, and enables the nurse to *roll* the body easily from side to side, while at the same time it gives her the opportunity of looking for any signs of pressure ; whilst, in the case of diseases of the joints, the limbs are kept in the right line by the help of another person steadying them. That painful bending of the body is thus avoided, which makes every

thoughtful nurse shudder. In carrying a patient up or downstairs, why the head should be the lowest: viz., because the head and shoulders being the heaviest an extra weight is thrown on the diseased spine or hip by the head being the highest; whereas, with the head low, it serves as a weight to keep the inflamed surfaces apart. A little painstaking instruction like this will make many an irksome detail interesting, and enlist the nurse on the patient's side, besides giving her an intelligent interest in her work. It is well to encourage the nurses to ask questions, and to spend a little time in teaching them the outlines of the cases they have to nurse; by this means you will teach them accuracy and observation, and draw out their capacities.

47. *If* a nurse has to train herself—a thing almost unheard of in these days—let her listen most intently to the conversation of the medical staff at the bed-sides; at first it will sound unintelligible jargon, but by the aid of the dictionary at the end of this book and a retentive memory, she will soon be able to have a very good idea of what is meant; and if she makes herself acquainted with the remedies used, and the end aimed at in their use, she will gain a very useful store of information. For instance: in a case of cystitis or renal disease, the questions asked will point to an altered state in the quantity and quality

of the water ; in a case of diabetes, the questions asked will point to the same ; the nurse might then try to find out for herself wherein these diseases differ in that particular, and notice the action of the medicines used.

48. In training a nurse to take observations of a case, try to point out to her the leading symptoms in the various diseases : the characteristic posture in heart disease, the aspect of chorea or tubercular meningitis, the recession of the chest in diseases of the larynx or trachea, and so on ; teaching her what she is to look out for, what symptoms are of importance and what may be disregarded. Above all things, teach her how to give concise, accurate answers to the doctor's questions.

"How has this patient taken his food?" Answer: "Oh, pretty well." That gives no definite idea, as one nurse's idea of "pretty well" may be another's idea of "but poorly." Say whether he has eaten his dinner ; which meal he takes best ; if he is on liquid food state exactly how much he has taken in the twenty-four hours. Let your answers be definite and to the point, and represent a thing exactly as it *is* and not as you wish it to be. The doctor at the bedside can glean a great deal of information through means which science places at his disposal, but he must also rely very much on

your answers: so look to it that they be honest and accurate ones; and if you have forgotten to ascertain any particular point, or cannot trust your memory in that particular, be honest and say so. Do not pretend to know that of which you are in ignorance, simply from the wish of seeming well up in the case. Your deceit may be the cause of serious harm to your patient.

49. Whilst going the clinical rounds the nurse must be taught to concentrate her whole attention on the business of the moment, so that she may be able afterwards to recall to her memory the various directions and instructions given her for each individual. No gossiping between the junior medical officers and the nurses should be tolerated; joking and laughing are inadmissible. It is impossible to give that attention that is required if a by-play of nonsense is going on outside the circle; besides, it encourages dangerous intimacies, and is beneath the self-respect and dignity of a nurse.

50. It is well for the nurse to write down on a slate or in a note-book the hours for the medicines, poultices, diets, &c., until she is able to trust her memory, and also anything of note that she has noticed in her patients, so that there may be no mistakes. In some adult hospitals the patients are entrusted with their own medicines; the wisdom of

this practice is *very* questionable, but at least the nurse should satisfy herself that her patients have taken the right quantity at the right time.

51. Medicines or stimulants are either of importance or of no value. If they are given in a hap-hazard, intermittent way, one of two points is evident : either that they are of *no* importance in the treatment of the disease, and so much valuable material is wasted ; or that, in a secondary sense, time and money are wasted by the recovery of the patient being retarded or prevented. Of the value and use of the remedies the nurses are not to judge, but to carry out faithfully the instructions given them.

52. And now, before concluding this chapter, permit a few words of advice from one whose life has been devoted to nursing.

You are going to undertake a great and good work ; but it brings with it many temptations. You will soon become familiarised with some of the hidden mysteries of our nature. Death, by its daily presence, will be stripped of its awe and sacredness ; the constant sight of suffering and disease will blunt your sympathies ; the frequent thinking of and talking of unpleasant and disgusting details will go far to do away with the refinement and modesty of the womanly nature. Worse still, the intimate interchange of ideas with the opposite sex will open the door to

many unconscious familiarities and improprieties, and it will depend upon yourself whether you will permit them and so lay yourself open to the greatest danger that can assail a woman, or whether you will at once check and put a stop to them. Do not surround yourself with a false barrier of prudery; but take all your work as it comes, doing the unpleasant and unrefined part with the same quiet ease as the more elegant and interesting; if you attach no undue importance to unusual duties, and, above all, do not make them a subject of talking with your fellow nurses, they will soon dismiss themselves from your mind. Do not be loud in expressions of disgust or of revolt, thinking by these means to call attention to your refined and modest nature; remember "that to the pure all things are pure," and it rests with yourself to come out of your hospital career with a mind as unsullied as you went in. Knowledge is not evil; but the use or abuse of it is evil. If you set before yourself the highest aim to be a Christian woman and a nurse, you will purify and ennoble all you touch.

SECTION D.

TRAINING OF A SISTER, OR SUPERINTENDENT OF NURSES.

53. IN considering the course of training required for the overseer of nurses, be she called sister or superintendent, it will avoid all needless repetition to refer the reader to Sections A and B, for she must be trained as a nurse in all particulars, there being no royal or smooth road to the knowledge of nursing; and it would be absurd for a woman to set herself up as the instructor and overseer of nurses in their duties when she was in ignorance of the experimental nature of those duties: therefore, let her be among and work with the nurses, and so will she be the better fitted for the more responsible and ambitious post.

54. A great deal is said and written in these days about the employment of intelligent, educated women in the nursing profession, and with a great deal of force. There is nothing unwomanly or "unladylike" in the work of a nurse, and the superior intelligence and education which a woman of cultivation will bring to bear upon her work must surely make her a valuable aid in the wards of a hospital. Only let her leave

her fine-ladyism at home ; do not let her come fancying hospital work is a pleasant dilettantism of petting sick people, reading to them, amusing them, giving them their food, medicine, &c. : its realities are very stern, its details irksome and disgusting, the work incessant and irritating. The hands lose their whiteness and delicacy ; sometimes they have to do very dirty work indeed : but then they will wash ; the mind is occupied with petty interests, to the exclusion of the more tempting pursuits of former days ; the lustre soon wears off, and a very homely reality is left behind. Let not this discourage any lady seeking such a life. The homely reality is a very pleasant one if sought in a true, earnest spirit ; and the various fields of thought, conjecture, and speculation opened up by an intelligent inquiry into the many problems that meet the nurse at every turn afford ample food for the most voracious intellect. But the drudgery must come first.

55. We will suppose that the first principles of nursing have been mastered, and that the sister is now ready to acquire a larger and more scientific knowledge of her work ; how must she set about it ?

In the absence of that definite and systematic teaching, the want of which has been already commented on in these pages, she must refer to books, and as the human body is always before her, she

should begin her study with that. Huxley's "Elements of Anatomy and Physiology" will be the best book to assist her ; it explains the mystery of the form of the body and the processes of life in very clear, simple language. The sister should have a thorough knowledge of the position of the principal organs and their appropriate actions—of the relation which they bear to each other, and of their reflex actions on each other ; she should understand the principle of the circulation of the blood, and be acquainted with the position and course of the leading arteries and veins ; she should have a clear idea of the position and names of the great joints and bones of the skeleton, and know something of the morbid processes and accidents to which they are liable. If she listens attentively to the clinical teaching in the wards, and afterwards refers to her books, she will find that this knowledge is not difficult to acquire. If lectures on anatomy, with the aid of diagrams, could be given in our hospitals to the nursing staff, a very interesting and efficient class might be formed, concluding with examinations and certificates of proficiency.

56. Next on the course should come instruction in the principles of hygiene, ventilation, and sanitation. The knowledge previously acquired of the organs of the body, their office in health, and their liability to

disease, would be a great assistance in understanding the need of fresh air, the necessity for cleanliness, the importance of regular wholesome food, of the due exercise of the muscles and organs of the body, and an insight into the laws that govern the circulation of the currents of the air, and the actions of light and heat on animal life, would also be necessary, coupled with a knowledge of some of the effects of vitiated atmospheres on the human frame. This knowledge would be necessary for maintaining the well-being of the ward and its inmates, and enable her to regulate its continuance in accordance with the common-sense laws of health.

57. During her training in the duties of a nurse she must have gained some insight into the more prominent symptoms of diseases and the courses which they usually run; but she should also be able to recognise the leading characteristics of the infectious disorders: to distinguish between measles and scarlet fever, chicken pox and small pox, so as at once to take appropriate measures for the isolating of the patient. She should also be acquainted with the symptoms of poisoning, and be ready with the proper antidotes: be able to apply means for controlling or stopping hæmorrhages, be conversant with the right treatment in a case of intractable vomiting, or in syncope; much valuable time is lost by a purposeless

hurrying to and fro to fetch some one, when, if the right remedy were applied on the spot, relief of urgent symptoms might be hoped for. These different subjects will be all treated of in their proper place ; and a list of the common poisons, their symptoms and antidotes, is appended.

58. Besides the duties which devolve on the sister in caring for her patients, she has also responsibilities to her nurses. On her depends the peace and comfort of the ward ; she must supply the oil to make the wheels of the machine move easily ; her nurses must be able to respect her, to look up to her as the referee and authority ; they must feel that her knowledge and experience is beyond theirs, and that she knows every detail of their work. She must set them the good example of punctuality, diligence, and obedience. It will never keep up the discipline of the ward if she lounges in like a fine lady at a later hour in the morning. However early the work of the ward begins she should be there to start it, and when a press of work is laid on her nurses be ready to give a helping hand, or to relieve an over-worked nurse. Her eye should be everywhere, and whilst keeping a watchful guard over the work of the nurses, she should yet endeavour to encourage in them a sense of their individual responsibility, and rouse in them a generous emulation in work. She must learn that happy art of

government which is summed up in the words : " Do unto others as ye would they should do unto you." This will win her subordinates on to her side, and schemes of economy and reforms in linen arrangements, generally so repugnant to the nursing mind, will be seconded with a cheerful *esprit de corps*.

59. It is a great help in becoming familiar with the signs and terms in use on the prescription boards of the patients to take these boards and use them as exercises, until the eye becomes so familiar with them, as to read them off like an alphabet. The rudiments of dispensing can also be learnt in the same way by mentally making up the prescriptions in imaginary bottles of various sizes.

60. In these days of hot debate on the propriety of women practising medicine, it seems a pity that such an appropriate field for the employment of women as the dispensary is neglected. There is nothing in its duties which a woman could not do (I am speaking from personal knowledge), and much that she could do fully as well as a man. Will not some of our hospitals take the initiative and offer an opportunity for women to learn dispensing, and to qualify themselves to pass the examination for the apothecary's licence?

SECTION E.

ON THE DUTIES OF A NURSE.

61. IN this chapter I intend to set forth in brief paragraphs the duties of a nurse, each under its own heading, with recommendations as to the way of performing them.

62. *Undressing the Patient.*—The patient being brought to the ward by the porters, he has to be expeditiously put to bed, and this should be done behind screens provided for the purpose, and with as little exposure of the person as possible. If too ill to bear the fatigue of sitting up, the clothes can easily be taken off whilst lying down, by unfastening all the fastenings whilst lying on the side, then, turning the patient on his back, they can be drawn over the shoulders and feet respectively. You should always look your patient over, that no bed-sores, bruises, or abrasions be overlooked. If the patient has a diseased limb, steady the leg or arm with one hand whilst you draw off the clothes with the other, and *always* set free the healthy limb first.

63. If the patient be an accident case, and requires undressing with as little movement as

possible, rip up all the seams of the clothes with your scissors or knife ; they can then be drawn from under the limb without disturbing it ; and if the clothes have stuck to or been driven into the wounds, cut them away all round, but do not attempt to drag them out, as you may cause hæmorrhage, and certainly cause great suffering. If your hand be steady and firm, and your manner quick and self-reliant, you should be able to do this without causing unnecessary pain. Try to keep the clothes from touching the patient, by placing your hand as a cradle for them to slip over. If you will exercise a little thought, it is wonderful how much unnecessary suffering may be saved.

64. *Making the Bed.*—In making the bed, try to give a little thought to the patient that is to be in it. There must be no rucks, for rucks mean discomfort and bed-sores. Let the clothes be well tucked in ; and in the linen required for the sick the sheets should be ample enough to tuck under well, so that the misery of a loose sheet may be spared a restless patient. Do not place the head too high, for it is not a wholesome practice to be bolstered up, except the nature of the ailment requires it. A small piece of mackintosh, with a sundry over it, should be laid under any part that is likely to discharge. This can be quickly taken away and replaced without dis-

turbing the patient, and saves sheets and mattresses from being soiled. All hospital beds are made up with a *draw-sheet*. This serves to keep the linen in order, and is easily withdrawn and another substituted without much movement. A piece of mackintosh kept under it is needed in children's cots and cases where there is much likelihood of discharge or other complications.

65. *Making the Bed without removing the Patient.*—This is necessary in cases of hip disease, fractures, after operations, and where there is extreme weakness. An assistant is always needed, unless the patient be a child. Roll up the draw and linen sheet the whole of their length into as tight and compact a roll as possible; have the patient turned on the side, with the back to you, and roll these sheets up close to the back; then have the clean linen and draw-sheet ready in a similar roll, half their width, and lay it alongside the other; turn the patient over, with his face to you: by this means the soiled linen is set free, and can be drawn quickly away, and by depressing the bed with your hands under the patient, the roll of the clean can be drawn under, unrolled, and tucked in its place. This can be done with safety in all cases of hip disease and exhaustion, and after minor operations, if the assistant steady the limb. Insist on the patient keeping the horizontal position

without pillow or bolster, as attempts to sit up very much hamper your work. In cases of fracture or of the major operations, the same process must be gone through, with the exception of turning the patient; instead of this, by raising the centre of the body, the rolls can be placed under, and a little shifting of the body and depressing of the bed will give space enough for manipulating the rolls, if the assistant, in the meantime, steadies the affected limb.

66. *Washing the Patient.*—In all cases where there is prolonged pressure, the back and shoulders of the patient require washing *every* day. This is the secret of keeping away bed-sores. The patient can easily be turned over, as was said when we described making the bed; and cleanliness requires that such parts of the body as are in perpetual contact with the bed-clothes should be kept free from perspiration, &c. In fever cases the body requires frequent sponging, and much fatigue may be saved the patient by doing this piece by piece: one half in the morning and one in the evening, as he can best bear it. In all cases avoid unnecessary exposure; have at hand a blanket to cover him; as much as possible be careful not to outrage his feelings of modesty, and carefully cherish any sense of decency. Remember that cleanliness must be enforced, but spare your patient all fidgety and unnecessary

washings. Some err as much in one direction as others do in the opposite, and worry themselves and their charges by incessantly changing splints or stirrups.

67. *The Bath.*—If a bath is ordered before placing in bed—and in all serious cases the sanction of the medical officer is necessary before it is given—you must satisfy yourself by the thermometer that the water is the right heat (90° or 92° is a warm bath), and, before your patient leaves the bath-room, that the cleansing process has been thorough.

68. *Giving a Bath.*—*Never* put or leave your patient in the bath with the hot or cold water taps running; serious fatalities have followed on such carelessness. Ascertain for yourself that the water is the right temperature before the patient goes in. Do not go out of reach or hearing whilst your patient is bathing, as sad casualties happen from patients being left unattended whilst bathing in a weak or delicate condition. In those cases in which a medicated or prolonged bath is ordered, the patient should be wrapped in a sheet and put in, and then if a sheet or blanket be thrown over the bath, the wet one may be withdrawn without exposure—when lifted out, the sheet already lying over the bath will form a covering. A blanket and slippers should always be in readiness to prevent taking cold from

a chill; and when a bath is given to a patient in a weak condition it is better to leave him quiet in bed for a time before disturbing him to replace the clothing. In all cases the temperature of the bath should be stated, and this regulated by the thermometer; nothing is worse than trusting to the hand, which is very misleading; but unless this be made the *rule* of the bath-room the nurses will evade it.

69. Besides the ordinary water bath there are others that are in frequent use, such as the shower-bath, the douche, the hot-air bath, and the vapour bath. In giving a douche, if the proper pipes are not provided a very effective one may be extemporised by turning on a tap at a good height, or by pouring water from a can held high up above the part. The douche is used either warm or cold. The hot-air bath may be given to the patient in bed by placing a lamp surrounded with a wire-gauze in the bed under a frame-work to support the clothes: the patient usually remains in it from twenty to thirty minutes; or if the patient be able to sit up, the bath is given under the impervious covering of the portable Turkish bath; but in giving *this* bath or the vapour bath, four folds or more of blanket should be placed on the chair, and a piece left hanging down to shield the legs from the great heat of the lamp. It is generally necessary to admit a

little air under the covering, as the lamp is apt to go out if this be not done.

70. *Giving the Medicine, Food, and Stimulants.*—Much, very much, of the well-being of the sick depends upon the punctual and conscientious administering of their diets and medicines, and this is so eminently the nurse's work that nothing can relieve her of the responsibility. There should be regular hours at which the medicines should be given, arranged in each hospital according to the hours of the meals; a time for the two, three, or four hour medicines; and it is not the least use charging the patients with this duty, for in nine cases out of ten they neglect taking it, or take the wrong dose, or drink the bottle at a draught. If medicine is of any use it should be given regularly; if it be of no importance, then a bottle of coloured water will answer the purpose; but, any way, it is the nurse's work, and should be done properly by her. If any mistake is made, such as giving the wrong medicine, forgetting it, or measuring a wrong dose, the nurse should *at once* tell the sister of the ward, so that the mischief may be remedied.

71. After the round of the visiting medical officer the nurse should look at all her patients' papers, take to the dispensary those on which new medicines are ordered, and observe carefully

what changes have been made in the treatment or diet. On receiving her new medicines, the nurse should be *very* careful to read the directions given on the bottle; *and no medicine should ever be given without first looking at the label.*

72. All poisons and external remedies should be kept in a separate place and in the proper poison bottles. No censure is too strong for the careless trick of leaving carbolic acid about the wards in ordinary bottles. If *all* bottles were properly labelled, fewer "deaths by misadventure" would happen. The sister should be responsible for the poisons, and these ought to be kept most carefully under lock and key.

73. It is hardly possible to exaggerate the responsibility of the night-nurse, who is entrusted with the care and treatment of the patients during the most critical period of their illness, and that without the perpetual supervision to which a nurse is subjected during the day; therefore, this responsibility can only be met by the most scrupulous conscientiousness in attending on the patients, in giving them the diets, &c., which are ordered for them, and these should be entrusted to her in a methodical, clear manner, so that mistake is impossible.

74. The particular times at which medicines are to be given are generally specified; but it is a rule

that arsenic is taken after food, and cod-liver oil and iron agree much better if taken on a full stomach. Purgatives are most active if they are given on an empty stomach: castor oil is usually given about five a.m., and it is at that hour much more likely to be retained.

75. Stimulants are generally given according to the doctor's orders, and these should be strictly obeyed, and not in an irregular manner, or, as is frequently the practice, not at all. It is well to give alcohol with food: its mischievous effects are then not so marked.

76. There is great scope for tact and management in the giving of the diets. That practice of just serving them round and leaving them beside the patient, often until they are cold and unappetising, is lazy and most reprehensible. In these matters each patient requires individual care: one may be too weak to care to raise himself, another requires a little coaxing, one a little variety, another a small helping, and so on; and if the nurse would bestow a little thought on her patients in these matters, her care would speedily be rewarded by improved looks and appetite. In the case of those patients who are on sick diet, much of the monotony of the food may be lessened by bringing the milk or beef-tea fresh to the bed-side at the stated times. Milk or beef-tea that

has been before the sick man's eyes all day must taste stale and unpalatable.

77. And here I might make a few hints as to the need of economy in arranging the food of the sick. Most extravagant ideas sometimes rule in those matters ; "fancy diets" are the other name for extravagance. Those who have had much experience in tending the sick know that the whims and fancies of their patients with regard to food are endless, but they also know that were the most dainty dishes placed before them they would go away untouched ; the sick stomach loathes anything but the lightest food, and that is milk or beef-tea, and to tempt the delicate with highly-flavoured dishes is doing actual harm. When the appetite returns the ordinary plain food will be welcome. Nature is the best guide, and we are not doing wisely to force her from her instincts. No waste should be allowed among patients or nurses ; various uses can be found for the unused food if it be put carefully and cleanly on one side ; and the wasteful practice of leaving little scraps on the plate, from the silly idea that it looks genteel not to clear up the plate, should be reprovèd and checked. All waste is sin, and should be so dealt with. It is hard to get nurses to see this ; everything is supplied ready to their hands, and they do not realise what they might save by individual economy.

78. *Attending to Individual Requirements.*—It is impossible, in a book of this nature, to pass over this part of a nurse's duty, as so much of the comfort of the patients is involved in their being promptly attended to, and in that being done with care and decency. It must be most humiliating to them to have to ask such offices at the hands of strangers, but it is a great *cruelty* on the part of the attendants to add to this pain by denying them necessary attention, or jeering at and blaming them for involuntary infirmities. Unfortunately, this is the habit of some nurses, and it is too frequently the case that much harshness and unkindness is shown to the patients, especially young children, by these hard-hearted women. Much pain of movement may be saved by the use of appropriate vessels and by keeping the patient in the prone position: if this be done, the shoulders and heels act as levers to raise the body, and the nurse's left hand being placed under the centre of the body, the movement is reduced to a minimum. It must of course be remembered all these vessels should be provided with covers, and the efficient use of them enforced by seeing that the nurse has the cover at the bed-side when summoned by the patient. There are many patterns, equally lauded for convenience and safety. A bottle-brush is the handiest implement for cleaning out the pans.

79. In cases of typhoid fever, a little Condy's Fluid or other disinfectant should be placed in the vessel *before* being used by the patient, unless the stool is to be kept for inspection, when it must be disinfected when emptied.

80. The practice of keeping the vessels under the beds is uncleanly and lazy : the vapour must rise up into the bed ; and in such positions it is difficult for the sister to see if they are emptied and cleansed. It is better that they should be kept out of the wards in an appointed place. In all cases they should be emptied at once after being used. The sister should inspect the closets, &c., every day, and see that they are properly cleansed and disinfected.

81. It is hardly possible to condemn in too severe terms the lazy selfishness of nurses who will keep their patients in misery and pain simply because they are too indolent to leave their seats to go to them. Let the nurse imagine herself in the place of the patient, and then think what unmeasured abuse she would pour forth on her attendant. The ward might be kept in a much more peaceful, contented state if the nurses would introduce a little order and method into this part of their work ; by this means the wants of the patients would be anticipated, and a great deal of friction avoided. The nurses should always discriminate between those cases where a diseased state

or an infirmity requires more frequent and careful attention ; such are diseases of the kidneys, bladder, or rectum, and some phases of paralysis. Be very careful not to insult or hurt the feelings of your patients.

82. *Making Poultices.*—Poultices are made chiefly of linseed meal ; bread, mustard, yeast, charcoal, and carrots are sometimes ordered, according to the requirements of the case.

See that the water is *boiling*, not merely hot ; warm the basin, and then put the water in *first* ; sprinkle the meal on to it, *stirring the whole time*, and mashing the mixture against the side of the basin—it ought to be the consistency of porridge ; pour out on to the rag or tow, spread rapidly with the spatula about one-eighth to a quarter of an inch thick, and smear with a little olive oil ; turn up the edges to keep in the moisture, and then fold and take it to the bed-side. If it is necessary to keep the poultice moist and warm for a long time, it is a good plan to place over it a piece of mackintosh *where there is no wound*, as in cases of pneumonia, bronchitis, or pleurisy, or a jacket of waterproof material may be used ; this does away with the necessity of frequently changing the poultice, which is so fatiguing to the patient. In all chest or throat cases have the fresh poultice ready to put on

before removing the other, so that there may be as little danger of a chill as possible. *Never* put a poultice on *too hot*; the patient's feelings ought to be the guide, as some are so much more tolerant of a hot application than others, and much harm is done by a very hot poultice. The poultice should be light and not too moist.

83. Poultices require changing three times daily if the waterproof covering be used; in serious cases of the throat every two hours. On wounds and abscesses the period must be arranged by the work that the poultice has to perform. If it is applied for the purpose of bringing forward an abscess, then it must be frequently applied—quite four times a day. In cases of great pain, either neuralgic or attended with inflammation, twenty or thirty drops of laudanum sprinkled over the poultice will make a very soothing dressing.

84. It is a mischievous practice to place waterproof material over a poultice that is applied to a wound: it increases the flow of discharge and brings a troublesome eruption on the skin. In any case, when an eczematous eruption appears on the skin it is time to leave off poulticing.

85. When the wound is indolent and the pus foetid, a poultice made of one part of powdered charcoal to two of linseed meal will make a very effective

deodoriser, and will in a very short time clean up the wound.

86. *Mustard Poultices* may be mixed either with hot or cold water, or with hot vinegar, the latter being a very pungent application ; or the mustard may be mixed with the linseed meal in the proportion of one to two, or half and half, according to the amount of pungency required. The advantage of mixing the mustard and linseed meal together is that a more manageable poultice is used, and that it can be borne a longer time. If the mustard plaister is applied without mixing with meal, a little flour should be sprinkled in with it, and a fold of thin muslin be laid over the face of it—this prevents particles of mustard remaining on the skin, the removal of which causes much annoyance to the patient. The surface from which the plaister has been removed should be carefully covered from the air, either with cotton wool or muslin. The mustard plaister may be spread on brown paper, with the edges turned over.

87. *Yeast Poultices* are made by mixing equal parts of yeast and flour with hot water into a smooth paste, or by mixing linseed meal and yeast in equal quantities with boiling water ; these poultices are used for cleansing a wound.

88. *Carrot Poultices* are made by mashing up carrots with a little flour, and placing them on the

wound: they are said to stimulate indolent ulcers. Yeast and carrot poultices are seldom used.

88a. *Bread Poultices*.—Cut a piece of bread without crust out of the middle of a stale loaf; place it in a cup or on a plate, pour on it *boiling* water, drain off the excess of water, place the poultice on a piece of muslin, press it between two plates until it is free from water, spread on it some lard or olive oil, and apply. A cold bread poultice is made the same way with *cold* water. Useful in painful inflammations on the fingers, or in swellings of the glands.

89. All poultices require a little olive oil to be spread on them, to keep them moist and to prevent their sticking; if oil is not at hand, a little lard may be used.

90. There are a few applications in use for relieving pain and applying heat, which, though not exactly poultices, yet partake somewhat of their nature, and may be spoken of under that head.

91. Bran sewn up in a flannel bag, and heated by hot water being poured upon it, makes a very useful and easy dressing to a painful part, and can be constantly re-applied.

92. Salt bags, heated in the oven, are very good vehicles for applying heat in cases of collapse or suspended animation; they retain the heat a long time.

93. *Spongio-piline*, moistened with hot water or with some sedative liniment, is a very cleanly and handy fomentation, and may be ready for immediate use when the materials for a poultice are not at hand. If the edges are sloped off inwards, it prevents the moisture causing annoyance.

94. Poultices are useful in all cases where a warm application is required, and can never do harm, except when there is a tendency to hæmorrhage ; their action is to relax the blood-vessels and to soften the surrounding tissues, so that the prolonged and unnecessary application of poultices makes the part sodden, weakens the recuperative powers of the vessels, and renders the skin liable to crack and be irritated.

95. *Antiseptic Dressings*.—All dressings which aim at the prevention of the formation of pus, by excluding the air and by purifying the surrounding atmosphere and the surface of the wound, are *antiseptic*, and there are several equally lauded methods of doing this ; but that which has received the most attention and is the most practised, is that popularly known by the name of Lister's Dressing, having been most extensively used and modified by Professor Lister. The agents used in antiseptic dressings are many ; but whatever be the means used, the principle is the same—*the pus must always be excluded from contact with the air*, unless the air be purified by an antiseptic spray ; so

that the size of the dressing, the thickness of the pad, and the frequency of changing the dressing, must all be regulated by the quantity of discharge that has to be dealt with. If the discharge has soaked to the outside of the bandages the principle is violated, and the dressing has ceased to be antiseptic. Charcoal poultices and marine lint, or oakum, may be called antiseptic, because they have a purifying action on the wounds; but forasmuch as they admit a percolation of the atmosphere, they do not entirely fulfil the requisite conditions.

96. The nurse's duty in attending to these dressings is generally to carry out implicitly the directions given; and this implicit obedience must be insisted on, as officious meddling will undo all the work of a week; and for the efficient carrying out of this treatment, it would be well that the case were in the hands of one person, who thoroughly understood it and was responsible for it. There are certain fidgety details which seem unimportant to the nursing mind, and so are neglected if not insisted on; and the practice of leaving a wound undressed for two, three, or four days is contrary to the nursing traditions, and therefore not at first easily understood; but, forasmuch as the success of the treatment can only be ensured by the carrying it out in its entirety, these details must not be neglected.

97. When preparing for an antiseptic dressing, you will have to provide the carbolic spray, the carbolised gauze, the protective, and the mackintosh. The protective is to be cut to the size of the wound; the gauze to be folded eight or sixteen-fold thick, according to the amount of the discharge, and be large enough to cover six inches or more round the wound; the waterproof to be the size of the pad of gauze. When everything is in readiness the wound may be uncovered, the spray-producer being worked the *whole* time over it, the dressings removed, and any remaining discharge be wiped away with tow steeped in weak carbolic lotion; then place the protective on the wound, the gauze next, and the mackintosh last, and then put on the bandage.

98. In opening an abscess, in addition to the things before mentioned, a vessel with weak carbolic solution (1 in 100) must be provided, into which the instruments must be dipped *before* being used, and a porringer for receiving the fluid from the abscess, into which a *measured* quantity of the weak carbolic solution should be placed.

99. The oakum dressing is regarded with disfavour in some hospitals, on account of the brown stain that it leaves on the skin; but as this is caused by the tar in the oakum, it need not be regarded as *dirt*, and the tar is very useful in keeping the skin

sound and in a healthy condition. A little olive oil rubbed on will materially help in removing the stain ; and as the object of treating wounds is to *heal* them, and not to make them look pretty, that which soonest brings about their cure is the most effective dressing. The oakum has the advantage of soaking up the discharge, of stimulating the wound, and of keeping away foul smells ; it can be used for a long period without injury, and be laid on a raw surface with advantage. It should be pulled out into a soft pad before putting on, and, as a rule, requires changing only once in the twenty-four hours, unless there is very much discharge.

100. There are so many different dressings, often the special favourites of individual surgeons, that it would be impossible to mention them all ; but a few simple rules will be given as to the manner of dressing wounds and the application of the appropriate remedies. Be quite sure that you have everything in readiness before you begin. There should be an empty basin to receive the dirty dressings, a jug of *warm* water and a basin, a basket or tray containing lint, strapping plaister, linen rag, cotton-wool and tow, simple and zinc ointments, spatula, bandages (cotton and flannel) of various widths, pins, tapes, scissors, forceps, needles and thread, waterproof tissue, &c., and the special dressing that is required for the case.

These should be all arranged neatly on a table by the bedside or across another bed, everything laid out separately so that it may be readily caught up. When everything is prepared, the patient may be uncovered; and in doing this be careful to keep him as warm as possible, as exposure very much conduces to lower the vitality and to increase the necessary discomfort of the operation.

101. Wounds should be washed with *warm* (not *hot*) water. Tow is much to be preferred for that purpose to either cotton-wool, which does not readily take up the water, or to a sponge, which retains the pus, &c., and cannot be properly cleansed, and, moreover, cannot be burnt. I know of no more efficient or cleaner vehicle for washing wounds than tow. Do not take it up *saturated* with water, but wring it out fairly dry; it is nasty to have a sloppy dripping of water about the limb or bed, and it also hinders the quick cleaning up of the surface. Wash round the wound with a quick firm touch, being quite sure of what you intend to do by washing, and do it. Do not, if it can be avoided, touch the surface of the wound with water. If it is a deep cavity which must be cleaned out, an irrigator, or a syringe with a piece of gutta-percha tubing to the end, will be the most efficient; the tubing used on the syringe breaks the force of the water, which is very painful to a tender place. In

removing stains or ointment from the surface of the skin, a quick *circular* movement of the tow will do it best, and turpentine will take off the marks made by the strapping. Do not exhaust your patient by fidgety cleanliness ; do as quickly and as quietly as you can what is necessary ; re-apply your dressing, which must be all ready prepared, and then arrange your patient in a comfortable position. Always have some waterproof material under the part that you are washing, and place a small square of the same, with a sundry or something of the kind over it, to receive the moisture or oozings from the wound during the day.

102. If the wound is on the scalp, or you are attending to an accident for the first time, carefully wash away first the blood and any foreign body that may be in it, such as dirt, gravel, particles of clothes, &c. Cut away *close* to the head all the hair in the neighbourhood of the wound ; it is then possible for the surgeon to see the extent of the wound ; and as you are ignorant of the size, nature, or position of the injury, be very careful and gentle in what you do, clearing away all the dirt, clotted blood, &c., from the farthest part first, thus gradually working your way up to the seat of the injury.

In cutting off matted hair, pass the blunt side of your scissors under the mat on the scalp, and cut as

you go on ; this will at once free the tangled hair from the scalp, and save the patient the pain of pulling and disentangling. Be very gentle and tender, but have a firm, steady hand.

103. When changing a splint, have ready a similar one, padded and properly prepared with waterproof material covering that part which lies in the neighbourhood of the wound, and then take off the splint ; an assistant meanwhile steadying the limb the whole time, by grasping it firmly *above* and *below* the joint. Whilst it is being washed, be very careful to dry it thoroughly, to look out for signs of pressure or abrasions, and to dust the upper and under surface with "dusting powder" before replacing it on the splint. When bandaging, the patient must lie down, the limb being kept in the right line; this *must* be insisted on, or the limb will be put up crooked. In re-applying extension splints, it is well to relax the tension a little, and then, when on, to bring it to its former limit, as by not doing so the limb is forced into an unnatural position, the cause of pain and inflammation. It is well as much as possible to avoid fidgeting at or perpetually changing a splint or extension apparatus, as this is the frequent cause of sores ; but here experience is the best guide. I have seen more sores and irritations caused by taking off plaister and splints, "to see how the skin was getting

on," than by leaving them as they were ; here the individuality of the patient must be studied.

104. When dressing a wound—an excision case, or otherwise on a knee-joint splint—the discharge may be effectually cleaned out *between* the limb and the splint (a most essential point) by passing first a piece of lint between, then *sewing* another to one free side, drawing the last piece under, and cutting away the soiled first piece, thus leaving a clean piece lying under the leg, to be manipulated in a similar way the next day.

105. In using Scarpa's shoes or similar instruments, an efficient pad over a prominence, or even over a broken surface, may be made by cutting a hole large enough to include the prominence or sore out of a circle of india-rubber a quarter of an inch thick. By making use of this contrivance I have seen the treatment of an apparently hopeless case of club-foot carried on to a cure, sores from pressure existing the whole time, the skin being so tender as to resent all applications. The great secret of using all these instruments is unceasing watchfulness over the limb, cleanliness, and the lavish use of "dusting powder." In children, whose tender skin and unclean habits form serious hindrances to the efficient application of these instruments, persevering use of these means will

quite overcome these obstacles. It is impossible to lay down hard and fast rules in these cases ; you must study your patient, and exercise your own common sense, bringing to your aid invincible patience and fertility of resource. You may be quite sure that if there is not one way of doing a thing, there is another.

106. *Bed-sores*.—"Prevention is better than cure;" this is most true of bed-sores. A nurse or sister should regard a bed-sore among her patients as a great disgrace, a reproach upon her nursing ; she should be determined to have nothing of the kind in her wards. To prevent them is the first thing. This can be done by washing and thoroughly drying the back every day ; by washing away all natural discharges where they flow unheeded from the patient ; by hardening the back with the "spirit lotion" (see SIMPLE REMEDIES) ; by changing the point of pressure ; by protecting the threatening break over a prominence with a piece of adhesive plaster, smoothly applied, about one and a half inches square ; by placing the patient on a water-mattress or pillow, and, where either of these are not to be obtained, on a thick sheep-skin mat placed under the sheet ; by using small pads with circular holes, in cases of spinal curvature, over the protruding vertebræ ; by painting the

reddened surfaces with collodion or collodion flexile until a firm false skin is formed ; by rubbing in zinc ointment where the eczematous condition of the skin points to irritation ; by keeping the under linen smooth, and the crumbs out of the bed.

There are some cases, such as paralysis in heavy, full-grown adults, debilitating or malignant fevers, low erysipelatous diseases, that favour the formation of bed-sores, the lowered vitality of the skin producing a large excoriation in a surprisingly short space of time ; and if a slight redness has been overlooked, or the periodic cleansing omitted, a large revolting wound will reward the nurse's neglect the next morning. There are a few cases, and these indicate the approach of death, when the skin, weakened and stretched over the large joints of the body, gives way spontaneously, and the cartilaginous structures over the bone are exposed. Such are almost unavoidable, but the liability to such accidents should serve as an additional stimulus to the nurse's vigilance.

107. The sore having formed, or the patient having come into the hospital the subject of bed-sores, how are they to be treated ? The patient *must* be placed on a water-mattress, and, if the nature of the ailment permits, in such a posture that pressure is removed from the broken surfaces. The most valuable dressing is Peruvian balsam, dressed *into*

the wound on lint the exact size of the sore, a large piece of dry lint, or one spread with zinc ointment, being laid over it. When the wound is indolent, this may be alternated with the Ung. Elemi ("green dressing"), applied in the same way, the whole being kept firmly in its place with strapping. When the wound begins to fill up, the one and a half inch square piece of plaister laid on, and only changed when it appears to have shifted, or else, if the spot is over a prominence, strips of plaister, will heal it quicker than anything else. This is a most *valuable* application. If applied as soon as the skin is broken, it will heal it; if put on when the sore seems threatening, it will save one coming; it will heal the most indolent ulcer, or complete the cure when the virtues of other remedies are exhausted. It seems to be mechanical in its action, supporting the weakened vessels and keeping the surrounding parts at rest, and by its imperviousness keeping out moisture. It must be applied quite smoothly, and be kept free from rucks. The daily routine of washing and powdering must be continued along with these remedies.

108. In hot weather, and in all weathers with some kinds of skin, an irritable eczematous condition is set up by pressure. This is very tedious to cure, and requires a perpetual change of applications. A

daily bath, if the nature of the disease admits of it, is the best; as local applications, zinc ointment, oil of tar, olive oil and glycerine, collodion, powdered oxide of zinc, white precipitate ointment—all are of use, and if the one does not bring about an improvement, another will, or a change from one to the other will sometimes do the most good. Be careful to keep a vigilant eye upon the heels of your patients; these often break into large sores when resting on the bed, and their want of sensitiveness does not betray their existence.

109. When making use of *stimulating* ointments or dressing, be careful to apply them only the *exact* size of the wound, keeping it in its place with a larger piece of lint placed over, spread with some non-irritant dressing. As much as possible avoid the use of waterproof material even over moist dressings; it encourages the formation of pus, irritates the skin, and makes the wound very offensive. A more frequent changing of a moist application, or the covering it with cotton-wool, will keep it moistened, and oakum placed over or tucked round the edges will absorb the moisture.

110. *Preparing for an Operation.*—A very important duty of a nurse is preparing both her patient and the theatre for an operation, and in each hospital the plan is different. It is sometimes the nurse of

the case that makes the theatre ready, sometimes the nurse of the week; but on whomsoever the duty devolves it must be well and thoughtfully done. The patient, if required to take an anæsthetic, must take no solid food for at least four hours previously; beef-tea, wine, or brandy and water should be given *two* hours before the operation. It is hardly necessary to say that cleanliness of the person also is requisite; the bladder and rectum should be emptied as nearly as possible immediately before the patient is taken into the theatre. When placed on the table, the head should be raised, the throat open and free, and the body laid in a convenient posture, that part of it not required to be exposed for the purposes of the operation being warmly covered, as neglect of this precaution, by increasing the already lowered vitality, is a source of danger to the patient. The general effect of an anæsthetic is to reduce the temperature of the body.

III. The theatre should be kept at a moderate heat (65° to 70°), well ventilated, and scrupulously clean. It should be well supplied with hot and cold water, and with a receptacle for emptying the dirty water. The instruments being under the care of the house-surgeon do not come into the province of the nurse, but it may be her duty to clean them, and if so, the *blades* of the knives, scissors, and forceps—indeed, all that part of them

made of steel—should be scalded in boiling water and dried at once; to be put aside ready for use again. There must be an ample supply of basins, with cold water and sponges of all sizes; these, as they are handed to the surgeons, *should be wrung out quite dry*. One nurse should attend to the sponges, and one to emptying the dirty water. The former is generally the duty of the sister, the latter of the nurse. Place also in readiness measured empty vessels, for receiving the contents of an abscess, or the pieces of bone, or whatever may be taken away, and do not dispose of anything until you have received distinct orders so to do from the surgeons or the sister. Lint, strapping, cotton-wool, tow, carbolised and plain oil, needles and thread, pins, tapes, gutta-percha tissue, oiled silk—all these must be at hand; and restoratives, such as brandy, wine, and ammonia, in case of need.

112. The table should be prepared by laying on it a sheet of waterproof, then a linen sheet, a small square of mackintosh to be placed under the part to be operated on, and a draw-sheet. Close at hand should be a good supply of similar linen and various-sized small pillows, as it may be necessary in the middle of an operation to remove the soiled linen and replace it with clean, and in doing so no time should be lost. A small basin and plenty of towels

should be at the head of the table, as the patient is very likely to be sick from the effects of the anæsthetic. When in attendance at an operation, the nurse must just have eyes and ears for the surgeons only ; she must be careful never to come between them and the light, and not to put herself in the way ; she must be always on the watch, and prompt to hand or do anything that she is told quietly and unobtrusively. If told to steady a limb, she must grasp it steadily and firmly, and see that her hands are not in the way of the operator.

113. *Nursing an Operation Case.*—When the patient is returned to bed, he should be kept very quiet, as the intoxicating effects of the anæsthetic have to work themselves off ; the injured limb should be comfortably arranged on pillows and steadied with sand-bags. In about half an hour's time he will be ready for an opiate, which will probably take effect, as the stomach and brain will have become quieted. It is the nurse's duty to watch for any sign of hæmorrhage, and to keep the injured limb quiet, patients in their ravings often trying to tear off their dressings or to pull about their bandages. After the first hour or so reason resumes her sway, and the patient is easily controlled.

114. *Attending on the Medical Staff.*—When the physicians and surgeons of the day go their rounds, the nurse must be in attendance, with a towel and

pen and ink, and be attentive to answer any questions or receive any directions that are given her; and it is well, when the cases are serious and many, to place on paper the instructions given, until the memory is so trained that it becomes the habit of the mind to retain them in order.

115. For the surgical rounds, the dressing-tray and splints, basins, sponges, and towels, must be in readiness, as they may be required, and time and temper are lost in having to fetch everything in detail. A nurse should know so well what is required of her that when the sister tells her the nature of the operation she can at once make all ready. Screens should always be placed round the bed when anything has to be done.

116. When told to strip a patient for a chest or abdominal examination, it is better, if possible, to slip the clothes *down*, as then the lower part of the person can be kept covered. A typhoid case should never be raised for examination or feeding, the extreme exhaustion of the disease being a source of great danger to the patient; he should be turned gently from side to side, and, if possible, provided with a garment which opens all the way down the back. By all means he should be saved any exhaustion or fatigue.

117. *Moving or Handling a Serious Case.*—In moving serious cases, two nurses at the least are

always required ; one should steady the limb, and the other raise the patient. When lifting a child with hip or knee joint disease, have the diseased limb farthest from you, grasp it firmly near to the ankle, making a little traction on it in so doing, place your other hand a little below the middle of the spine, and lift the patient from the bed, keeping him *absolutely straight* ; if heavy, the weight may be lessened by making him put one arm round your neck. In this way the most painful and diseased limbs may be handled without injury or suffering. In the case of an adult, the patient should place an arm round the neck of each nurse, and one nurse should grasp the limb, and place her other hand on the bottom of the back ; the other nurse should support the middle of the back and the other limb. In all cases take care that you have the diseased limb steadily in your grasp before you attempt to move the patient, and lay the patient carefully down before you let go your hold on it.

118. When patients are heavy, helpless, or paralysed, your work will be much facilitated by rolling them over from side to side in a sheet, and if you fasten a strong rope to the foot of the bed, they can by its aid do a great deal towards raising themselves. In all hospitals a strong rope is fixed to the ceiling to help the patients.

119. It is frequently necessary to change the bed-linen whilst the patient is in bed, and that with as little movement as can be. In fractures and injuries to the lower extremities, it is a very good plan to lay two sheets *across* the bed, meeting in the middle; the lower one can then be withdrawn without lifting the patient, whilst the limb is kept steady by an assistant. (For further instruction on this point, see paragraphs 64 and 65.)

120. *Dressing of Sore Heads.*—Among the unpleasant duties that fall to a nurse may be certainly placed the care and dressing of sore heads, and yet nothing more repays the amount of labour and pains bestowed upon it. First of all, apply a good large linseed poultice, well oiled, and repeat this application until the scabs are quite softened; then cut off the hair close, and then with the blunt side of your scissors cut *underneath* the scabs, loosening them from the scalp, to which they are held by the matted hair; you can always carefully insinuate your scissors *under* a scab. When the surface is cleared from hair, &c., you can give it a good wash with *soft* soap and warm water; the head is then ready for the application of the ointments or lotions. Ointments are much more effective if *rubbed* into the scalp than applied on rag; in the one case they come in contact with the disease, in the other they are kept

from it by the little hairs that must remain. Some heads do better with a covering, and some do not ; in these points experience is the best guide. It is well not to wash the head too frequently, and when done *soft soap* must always be used ; an occasional poultice will be of use in cleaning it ; the hair must be kept cut quite close to the head until the eruption is over. There are various applications for sore heads, each alike extolled by the prescriber ; but whatever be the remedy prescribed, its success or non-success will depend entirely upon the diligence with which the nurse makes use of these secondary means of cure. Zinc ointment and tar are the most useful remedies for treating sore heads. Washing them with gruel is also a useful remedy when there is great irritation of the skin.

121. *Treatment of Vermin.*—Whilst on the subject of heads it will be as well to say a little on that plague and pest of nurses, pediculi in the head—on their prevention and cure. In the case of the hair being infested with nits, the only remedy is to cut it down to within an inch or an inch and a half of the head. The nit has vitality when close to the head, but when about an inch down on the hair it is only an empty shell, and is harmless ; it will remain there until it drops off. In some troublesome cases the creatures seem to breed in the hair

follicles, and then they are very difficult to eradicate. Washing the head with spirits of turpentine is the only successful remedy of which I know; it must be washed off at once, as it irritates the scalp, but it certainly destroys the creatures and their eggs. The *Staphisagria ointment* is very effectual in mild cases in checking their increase; its only objection is its smell, which is not pleasant. Frequent washing with soft soap, combing, and the use of this ointment, will quite cure them, if persevered in with diligence. It is always well, in cases of fever or prolonged lying down, to keep the hair short, as the most careful nursing cannot prevent these creatures coming in some cases. Light hair is always more prone to them than dark. The white precipitate ointment has *not* been found successful in severe cases; mixed in equal parts with olive oil, it is very useful in removing the scurfy patches and dried skin left after acute eczema, but when the skin is broken it should not be used, except under medical direction.

122. *Treatment of Ringworm.*—Another troublesome affection of the scalp is *ringworm*, and it is so highly contagious that, once in the wards of a hospital, it is very difficult to eradicate. The use of separate towels, sponges, or flannel must be insisted on. For local treatment, paint the patch liberally for three successive days with the strong

Lin. Iodi; this ought to kill the growth, and it is less likely to make a sore than the blistering fluid. It may require repeating oftener in long-standing, obstinate cases, but in the use of it be careful not to cause a sore; the after-treatment consists in the use of the white precipitate ointment until the skin of the head again looks natural. The same treatment should be pursued in the case of ringworm of the body. When ringworm has been discovered, the head and the whole person should be carefully examined every day for fresh patches, which are very likely to occur in unsuspected places.

123. *Applying Local Remedies.* — A blister is ordered; how and where is it to be put on? This question perplexes many a nurse. The where ought to be settled by the medical officer, but sometimes the direction is given in such vague terms that the nurse is left in some state of perplexity. A blister for the hip-joint is most effectual if put on in the region of the groin; for the knee-joint, if applied in the shape of two half-moons above and below the knee-cap; for the ankle, if placed between that joint and the heel; as a rule, if applied in the region of the joint and not immediately over it. Blisters are generally spread on leather or adhesive plaister; if on the former, the blister must be kept to the spot by strips of plaister, and it must always be warmed before it is put on.

From eight to twelve hours is sufficient to allow for its rising ; in the case of children it is better to put it on at bedtime, as they go off to sleep before the irritation commences. If the blister is placed on the chest, four hours is sufficient time for it to remain on, and whilst on it must be watched for fear of a large and unmanageable sore being the result. A reddening of the skin with a slight vesication of the cuticle is generally all that is necessary when applied on this part. Blistering fluid, being more superficial in its action, will be found a safer agent, especially in the case of children. Sometimes the skin is very little inclined to irritation, and then a warm poultice must be applied to aid the process. When it is well risen, take the blister off carefully, so as not to drag or break the thin cuticle ; make a good-sized snip at the lowest part of the vesicle to draw off the fluid, and then dress it with the ointment ordered, either simple or zinc if it is to be healed, Scott's dressing or resin ointment if the sore is to be open for a little while.

124. When dressing a seton, the thread must be pulled either way to keep it open ; but if care be taken to keep the two sides *level* with the openings by means of forceps, so as not to rub the edges of the wound, this operation need not be so painful ; a liberal dressing with ointment will keep the threads moist and supple.

125. In *all* cases it is the *edges of the wounds* that are most susceptible ; if care be taken not to touch these, many applications and dressings are robbed of half their pain. *Drainage tubes* have to be moved every day. In moving them, the same remark applies to them as to setons.

126. *Fomentations* may be either simple or medicated ; they are used to allay pain by the application of heat, or to withdraw pain by causing slight surface irritation. A fomentation may be given either by flannel or on *spongio-piline* ; in either case it should be wrung out of *boiling* water in a towel, and the heat retained by folding over it a dry towel. The application must be kept up continuously, or it is of little avail.

An anodyne fomentation is made by sprinkling from fifteen to twenty drops of laudanum or tincture of belladonna on the moist flannel.

An irritant fomentation is made by sprinkling from thirty to sixty drops of turpentine on the flannel ; this latter is called a *turpentine stoup*, and is of much use in the severe abdominal pain that accompanies typhoid fever. (For poultices, bran-bags, salt-bags, &c., see paragraphs 82—92.)

127. *Application of Leeches*.—If the leeches are kept out of the water for half an hour they are much more likely to bite ; they should not be handled with

a warm hand. If nothing else is at hand, turn the box over on to the part with the leeches in it, and hold it there until they bite. A little sweetened milk, porter, or blood smeared on the part may help them to bite. If all efforts are unavailing, fresh leeches must be procured. The most convenient way is to put the leech in a test-tube, stuffed with cotton-wool to within two inches of its opening, and keep the glass inverted over the spot; the confined space will induce the leech to settle. In choosing a spot, as far as possible avoid placing them on a vein, as the bleeding is more difficult to control. When the leeches are settled they should be left quite undisturbed, as any attempt to pull them off may leave one of their teeth in the wound.—Have ready at hand a sponge and basin of cold water, a plate of salt, a jar for the leeches, and strapping and lint. The leeches will drop off when they are satisfied, and if they are placed in the salt they will vomit the blood and can then be put aside. Bathe the bites with cold water until the bleeding stops, and then close them with pads of lint. Keep the patient warm and quiet. Sometimes the bleeding is most intractable; if pressure is possible, bandage the part firmly, but if not, place on it a little ice, or tincture of perchloride of iron, tannic acid, or any other styptic. A favourite remedy in old times was a cobweb laid on the bite; and certainly I have

seen it stop hæmorrhage when all the above remedies had failed. For leeching in the mouth, rectum, or vagina, the proper leech-glasses must be used, and great care taken that the leech does not escape and crawl inside.

128. *The Application of Ice.*—Ice is a *most* useful adjunct, either for local application or to be taken internally. Employed outwardly, it allays inflammation or stops bleeding; given inwardly, it stops vomiting or moistens the system in cases of blood-poisoning and fever. When applied externally, it should be tied up in a bladder or suitable waterproof bag, and laid on the part, renewing it as frequently as it melts. A towel or draw-sheet should be placed under the limb to catch any moisture. When applied to the head in cases of cerebral disease, the head must be shaved, and the bladder or bag laid on the scalp, and kept in its place by being fastened in a towel and pinned on to the pillow. Ice keeps best wrapped up in flannel, if provided with a good drainage, as it is the water surrounding it that causes the ice to melt. If wanted by the bedside, make a funnel of *coarse* flannel, and place it, narrow end downwards, in a jar or mug with the ice in it broken up in small pieces; if covered with flannel, the ice will keep much longer than if placed on a plate or in a glass.

129. *Recovery from Fainting.*—The cause of

fainting, or syncope, most frequently is want of blood to the brain, primarily originating in imperfect action of the heart. At once, then, lay the patient flat, with the head well depressed below the feet, throw open the clothes about the throat and chest, give free admission of fresh air round the patient, and keep off all officious intruders. Sponge the face and chest with cold water, tickle the nostrils with a feather, put mustard poultices to the soles of the feet and hot-water bottles to the body ; if still in a state of syncope, raise the body by the feet, so as to send a direct current of blood to the brain, and give a warm douche to the head. On recovery, keep the patient quiet, and give some stimulant, such as ammonia, camphor, or ether. In cases of fainting from loss of blood, do not give the stimulants, as the faintness is one great help in stopping the flow of blood.

When the fainting is caused by chloroform, the above rules for restoration will apply, and pay particular attention to lowering the head. The famous French surgeon, Nèlaton, laid great stress on this ; “keep the head low” was his first rule when fearing a complication during the administering of the anæsthetic, and to that he attributed the restoration to life of some very serious cases.

130. *Fits*.—The most common form of fits is epilepsy, and in nine cases out of ten that is the

nature of most convulsive seizures, but much may depend on the nurse distinguishing rightly between epilepsy and apoplexy. The epilepsy almost always begins with a cry; the patient is the subject of violent convulsions and distortions, foams at the mouth, struggles violently for a few seconds, gives a deep sigh, and comes to himself, looking faint and showing signs of exhaustion. In apoplexy the patient is much quieter, more unconscious, breathes stertorously, and the face frequently turns a livid purple; there are no convulsions. In epilepsy nothing is required but to see that the patient does not hurt himself, and to loosen all the fastenings about the throat. A patient may die in an apoplectic seizure, and therefore it is necessary to send for the doctor without loss of time; and as the patient is suffering from too much blood in the head, place the head high and the feet low, give plenty of fresh air, and bathe the face with lukewarm water.

131. *Arrest of Hæmorrhage.*—When you see blood, do not be alarmed; it makes a great deal of show, and often means nothing. Sponge away the blood with *cold* water, so as to see clearly from whence it comes; press a wrung-out sponge firmly on the wound, so that you can see whether it comes from an artery or a vein: if from the former, it will spurt out, and you will probably see the vessel pumping. If the wound is situated on any part

where you can make pressure, bandage the limb *firmly*, putting a pad over the wound, and place your bandage *between* the heart and the wound; a stick inserted into the bandage and twisted will make a very efficient tourniquet. If you see that the hæmorrhage is not stopped, remove the bandages, raise the limb, and apply lint steeped in the diluted solution of perchloride of iron, tannic or gallic acid—this ought to control it; apply ice to the part, and keep the patient quiet. Do not give stimulants until the flow of blood has ceased. If you cannot make pressure, apply ice and the astringent at once. In the case of a *divided* artery, keep your finger over the spot, and make firm pressure until the arrival of the surgeon. Hæmorrhage from the nose is most difficult to control. Bathe the nose and forehead with cold water, apply cold and ice to the back of the neck, gently syringe the nostrils with perchloride of iron or some astringent. It is often necessary to plug the posterior nares; but this can only be done efficiently by the medical officer, who should always be sent for in serious cases. Keep the patient quiet, and lying down.

132. *Application of Bandages.*—A bandage has two uses—one to act as a support and to exert pressure on any part, the other to keep a dressing or splint in its place. It is difficult to give written instructions how to put on a bandage—one practical demonstra-

tion is worth pages of instruction. A bandage is a long, narrow strip of calico, flannel, linen, or woven material, from two to six inches wide, and from six to twelve yards long; narrow bandages are most useful for the limbs, wide ones for the trunk. They are rolled up tight on a bandage-roller, and are so kept ready for use. There are a variety of bandage-rollers, each having its advantages; but so long as the end is attained of rolling the bandage tight and even, that may be used which is most convenient.

133. When a limb is to be bandaged, stand at the *outside*, or the end of the limb; start with the bandage in the right hand, the roll uppermost; make three straight turns round the ankle, and then bandage the foot before going up the leg; always pass the roller from the left into the right hand. Keep the two edges of the bandage flat on the limb; when this cannot be done, a *turn* is necessary, which is done by placing the thumb of the left hand on the limb in the centre of the bandage, and by a quick *downward* turn of the bandage in the right hand, folding it over on itself. These turns must be made wherever the shape of the limb requires it, and they must be smooth; there should be no rucks. When passing over a joint, a figure of 8 turn is the best. Be careful not to bandage too tight, so as to interfere with the circulation (a common fault with beginners), nor

too loose, so as to be practically useless. It should not be possible to pass the finger between the folds of the bandage. A bandage perfectly applied should feel firm to the grasp, have no rucks, have the turns in the centre of the limb, and even distances between the folds. A bandage should overlap about half its width. When applied over a dressing, it should be moderately loose, as otherwise it may cause pain or keep in the discharge. When a limb is to be bandaged, it is wiser to include the foot or hand, as the altered circulation may cause the extremity to swell; and in either case commence round the joint.

134. There are many varieties of bandage: the **T** bandage, which acts as a suspensory bandage; the many-tailed, used on the head, for scalp dressings; the two-headed roller, most useful when a greater degree of pressure is required. The roller is capable of endless forms, according to the ingenuity of the nurse and the work required of it, but the simpler it is the better.

135. Bandages may be hardened into a splint when on by brushing them over with starch, or with a solution of gum and chalk in equal parts; or they may be rubbed in dry plaster of Paris before being applied, and then, if wetted when on and a coat of plaster of Paris brushed over, a very firm and immovable splint is made. Their adaptability

to the figure makes them of great value as a support.

When learning to bandage, the beginner is advised to use the living limb ; no model, however carefully devised, can convey the yielding, elastic feeling of the living muscle, familiarity with which can be the sole guide in applying a bandage.

136. *Applying the "Stirrup" for Extension.*—Take a piece of strapping-plaister three times the length of the leg below the knee, and from two to three inches wide ; fold it in half, and cut a hole in the centre ; have a piece of wood the width of the strapping, and from four to six inches long, with a hole in the centre ; place the hole in the strapping over the hole in the wood, and keep the wood in its place by strips of strapping. Apply the free ends of strapping to the inner and outer sides of the limb, having the piece of wood at right angles to the foot and six inches from it. See that the plaister lies smooth ; keep it in its place by four pieces of strapping about an inch wide placed round the limb at equal distances, and be very careful that that nearest the foot be placed well above the ankle. If the free ends of strapping are too long, fold them back. Keep all in its place by a bandage. A hook or a loop of cord in the piece of wood will be most convenient for attaching the weight. The stirrup is part of the

extension apparatus used most frequently in diseases of the hip or knee joint, but also where there is contraction of the lower limbs after a burn, or after rheumatic fever. It keeps up a steady traction on the leg, and is the most easily tolerated form of extension. A weight of from 2 lbs. to 4 lbs. for a child, to 8 lbs. for an adult, is attached by a cord to the piece of wood in the stirrup, and runs over a pulley (a cotton-reel being very handy for the purpose) fastened at the foot of the bed on a level with the *ball* of the patient's foot, so that the weight swings free, and moves up and down with the leg.

137. *Splints*.—The use of splints is to give support to a weak part, to keep two ends of bone in their place, to serve as a fixed point to which to attach curved or deformed limbs, and to maintain a state of absolute rest where it is needed. They are made of wood, iron, leather, gutta-percha, felt, or of some of the various patented materials. The first two substances are stiff and unyielding, but the latter are chosen for their plastic qualities, which admit of their being moulded accurately to the part by the influence of heat.

When the material for the splint has been decided on—and of all the varieties there is none that equals leather, being porous, elastic, and, when set, unyielding—take the pattern in paper, and then cut it out of the

leather or other material; oil thoroughly either the limb or the inner surface of the splint, plunge it in *very* hot water, and keep it there until it is as soft as a piece of felt. If gutta-percha be used, great care must be taken in this process not to *melt* the gutta-percha; it must be heated very quickly; then place it on the part, protecting all tender or sore places with cotton-wool, mould it to the shape with the hands, and bandage on *very* firmly. In twenty-two hours it will be quite hardened, when it may be taken off, trimmed and shaped, and lined with wash-leather pasted inside. Holes can be punched for lacing it up, or it may be fastened with straps and buckles. There is great room for constructive and inventive genius in the making of splints, which are most complete when they are quite suited to the work they have to perform. Splints made of wood or metal require padding. The most suitable material for padding is tow, covered with linen; it keeps its elasticity, and does not form lumps like cotton-wool, and besides is much more economical. The padding should be made separate, and sewn on to the splint firmly; it should lie even, be stuffed full enough to form an elastic cushion, and adapt itself to the form of the splint or limb.

138. *Passing the Catheter*.—It is nearly impossible to give a practical direction for this operation. The

nurse must remember that there are two passages—the vagina and urethra—leading into one outlet ; that it is much easier to pass the catheter into the vagina than the urethra, thus making the operation useless. These parts, being very sensitive, require delicate handling, and the nurse should be sure of the localities before making the attempt to get into the bladder. The urethra lies above the vagina, and the catheter being *oiled*, and inserted into the meatus urinarius, should be guided along the upper wall of the orifice until a small prominence is felt, which should be a guide to the entrance of the bladder, into which, if the catheter be lightly and sensitively handled, it will slip. The learner should see the catheter passed by an experienced hand several times before making the attempt herself.

139. *Injections*, or *enemata*, are used for cases where it is needed to excite the action of the bowels quickly. There are appropriate instruments devised for this purpose, but in the absence of them a syringe, or an india-rubber tube, one end placed in a jug held up high, will answer the purpose. They are also used to convey nutriment into the body when from any cause the natural passage is unavailable.

A simple enema is a pint of warm water, or soap and warm water, thrown up into the bowel—a most useful remedy in cases of constipation.

Enema Ol. Ricini—half an ounce of castor oil in an ounce and a half of gruel.

Enema Terebinth—half an ounce of turpentine in an ounce and a half of gruel.

Enema Amyli—two ounces of starch.

Enema Amyli c. opii—as above, with fifteen to twenty drops of opium.

Enema Alimentare—two eggs, four ounces of beef-tea, four ounces of port wine or two of brandy with water thickened with a little arrowroot ; this is the most usual combination for nutritive injection. Injections must always be about the temperature of the body (96° to 100°), and before the instrument is used the air should be expelled by passing warm water through it ; the nozzle should be well oiled.

140. *The care of the Body after Death.*—The work of the nurse must not cease until she has reverently and decently composed the body for burial ; and if there were a little more instruction in this office, and an acknowledging on the part of the survivors that this sacred work should not be handed over to gin-drinking, chattering hirelings, we should not have those disgraceful scenes round the body that yet degrade our boasted civilisation. There is a natural repugnance and shuddering at the sight of death which should be striven against ; for if in life we treated this poor suffering body with reverence and

decency, how much more when the closed eyes can no longer reproach us, or the powerless hands beat off our intrusion.

141. After death has taken place—and the indescribable look of death, so familiar to the experienced eye, will place that fact before us beyond the possibility of doubt—the body should be laid quite flat, the limbs straightened, the jaw be tied up, and the eyelids kept closed by wet lint or something similar. It is easier at this time to remove the garments ; but consideration for the feelings of relatives and friends should prevent us hurrying on, or doing anything that will hurt their sensitiveness.

142. When an hour has elapsed, the body may be washed and prepared for burial, and this office should be performed in a quiet, seemly way. It should not be an opportunity for laughing and talking, or the retailing of experiences, for criticising or mocking the infirmities of the patient ; but rather should be performed in reverent silence and hushed manner, thinking how soon such-like offices will be done for us. Keep a decent covering over the body, paying a natural respect to the modesty of the living. Compose the features into the semblance of life ; and if it be necessary, from the nature of the illness, to close the orifices with cotton-wool, endeavour in doing so to retain the outline of the face. If there have been

wounds or injuries during life, let them be bandaged over with cotton-wool or tow. If an examination has been made, try as much as possible to restore the body to its natural appearance by bringing the hair over the marks in the scalp; aim as much as possible at a simple, natural arrangement. Clothe the body in some simple garment, either a night-dress or some garment made like it simply; have nothing to do with those horrid shrouds, the delight of undertakers, a falsity made up of gum and stamping, for show and not for use, beneath the dignity of the individual in life, and therefore not fitting for the solemnity of death. Cross the arms over the chest, and place in the hand a few flowers or leaves. The body should now be placed in the coffin (and this should partake of the same simplicity) and be fastened down. It is not right to the living, nor can the last recollection be pleasing, if the face is kept uncovered until decomposition has changed the aspect.

143. It is the inevitable law of nature that our bodies should resolve into their natural elements, and those are acting most wisely who yield ready obedience to this law by choosing such material for interment as offers the least resistance to the action of the earth, and by discarding the unwise and unreasoning fashion of leaden coffins and bricked vaults or catacombs. Could such ill-advised relatives see

inside the tombs of their friends after the lapse of a few years, the horror of the revelation would abide by them for ever. It is much to be wished that the primitive fashion of the winding-sheet and quick burial could be revived; but that we cannot hope to see until the modern race of undertakers has been reformed off the face of the earth; but the first step in the right direction is the introduction of the wicker coffins. Whatever mode of burial we choose, let all in connection with the preparation for it be done reverently and simply, and not by the hands of the hireling. It is a Christian duty to prepare the body for the grave, and one that in old days was done by the princesses and nobles, for then the body was revered as the casket of the immortal soul, committed to the sacred charge of the earth to be purified and beautified for the resurrection; and let us aim at an outward recognition of the joy and hope of the resurrection by banishing the trappings of woe, substituting for the undertaker's misery the Christian's faith and hope.

SECTION F.

THE MOST COMMON SIGNS AND SYMPTOMS OF DISEASE.

144. THIS chapter proposes to give a few hints on the different aspects of disease, so that the nurse may be able to recognise some of the leading characteristics of each ailment, and be competent to make trustworthy observations for the medical officer. Generally in hospitals these notes are made by the house-surgeon or clinical clerks; but in private nursing much must necessarily depend on the acumen of the nurse, and she must previously be instructed in the signs of disorder; particularly is this required in nursing children, the little sufferer being quite unable to give an intelligible account of his sickness. And here let me warn my sisters of the proverb "that a little knowledge is a dangerous thing"—doubly true of our science, where the unwise exhibition of an imperfect education may endanger the life of others. Let not the nurse think that because she is acquainted with the outlines of human physiology, therapeutics, and pathology, that therefore she is competent to treat the grave maladies of the

body, or to match her scant knowledge against the life-long study of the professors of the healing art. To do so is to bring into disrepute the intelligent nursing of the educated woman.

145. Nature has endowed the body with a wonderful power of uttering her complaint in voiceless speech, and it is the duty of the nurse to learn this language and interpret these signs. We will suppose that a new case has been admitted into the wards, and that there is some hesitation and difficulty in arriving at the nature of the illness; the nurse receives instructions to watch the case and report the symptoms. We will give in a tabulated form the observations that she is to take.

Exterior.—The Posture of the Patient when in Bed or Asleep.

146. In typhoid or other fevers of an extremely depressing nature the body generally lies *very* flat in bed, sinking down off the pillow: an attitude indicative of extreme and dangerous exhaustion. In diseases of the heart the body is set high up in bed, propped up by pillows, arms thrown high up over the head; or sometimes the body is rested on a pillow in front, a little leaning forward. The patient, asleep or awake, is perpetually raising himself up in the bed.

In diseases of the chest the patient generally turns *on* to the affected side, especially when there is fluid in the chest.

In dropsies there is great restlessness, an incessant change of posture, the aim of the patient being to relieve the sense of weight and fulness.

And here note that the local bulging is a most valuable sign in diagnosing abdominal or pectoral swellings.

In affections of the joints or other surgical ailments, the position into which the body naturally falls is of immense help in arriving at a correct judgment of the nature and locality of the disease; the way in which the body instinctively saves the spine from a jar when the vertebra is the seat of inflammation, or removes the pressure from the hip-joint when that is diseased; the stiff way in which the head is carried, symptomatic of cervical inflammation: these are all so many loud utterances ringing in the ear of the doctor, calling his attention to the locality of the mischief. Observations on the posture of the patient are much more accurate when taken during sleep, for then the body seeks the most easy posture wherein to lie.

147. Next in importance to the posture of the body in illness comes the aspect of the face. It is almost impossible to give any definite instruction

on this point: infinite in variety as the mental expressions that flit in ceaseless succession across the features are the facial aspects of disease, and nothing but experience and thoughtful attention can render them familiar to the nurse. Often a doctor says so and so has the aspect of such or such a disease, but in nine cases out of ten he will be unable to give accurate reasons for his opinion; it is long study of disease in its varying phases and aspects that has given him this knowledge, and it is only by such study that the nurse can learn the features of disease, and the changeful expression of those features during the course of the disease.

In diseases of the brain the aspect is very marked. There is the gradual creeping on of unconsciousness in the acute stages, the want of speculation in the eyes, the stolid, uninterested look of the face, the knit brow, expressive of pain, the absence of *soul* in the whole face; in the more chronic form, there is the dulled expression of the eye, the stupor and lethargy in the face, the unmeaning smile, the want of play and of light over the countenance: these are all marked characteristics, easily recognised, for affections of the brain, being diseases of the seat of the mind, speedily put their indelible mark on the face, and soon mar its beauty and its life. But not so with the more obscure ailments of the body; but to the careful observer

they each write their story in the face, either in the complexion or on the features.

Diseases of the respiratory organs or of the heart are always written on the face in a pained, anxious look, as if the maintenance of life required thought and caused anxiety.

In abdominal and renal disease there is generally a pinched, starved look ; the cheeks and jaws are thin and sharpened, the eyes keen and hollow.

148. Much diagnostic help is given during the course of a disease, by noting the temper and spirits more especially in children, for they are often poor actors, and, unlike their older brethren, are as a rule ready to shake off the wearisome tedium of illness as soon as the sensation of returning health re-awakens life and vigour. Like the little birds, they become silent and still in the darkness of illness, and like the little birds, they chatter and flutter when the bright beams of the sun of life warms them again into joy and happiness. Patients their elders in years, but not in wisdom, sometimes *regret* returning health, and cling tenaciously to the ways and tempers of ill-health ; but there is that undefinable appearance which, in spite of their protestations to the contrary, betrays their amendment to the experienced eye. It is a general rule, which most frequently holds good, that in acute illness an exhibition of wayward-

ness and fractiousness is a sign of convalescence. People when very ill are too weak to be cross; it is returning vigour that seeks vent in pettishness: and this is certainly very true of children.

The *spirits* of patients are singularly susceptible to the weather, and therefore, before judging of their symptomatic value, a glance must be taken at the barometer. In an east wind the vital powers are at a lower ebb, and very susceptible of exciting causes: so that great depression during an east wind is not distinctive of increased prostration. People in health are more irritable in an east wind, how much more those that are already weakened by illness! When the spirits become more equable and more under control, then returning health and strength may be safely deduced; but here also experience and the study of individuality must come to the help of the nurse in forming her opinions.

149. Among the exterior observations, I think that we must place those on the temperature of the body. This is ascertained accurately by means of the clinical thermometer. In health the temperature varies from 98° to 99° ; even 100° may be registered without any serious deviation from the standard of health; but a *persistent* temperature of 100° or more is symptomatic of some derangement. The temperature is generally taken in the axilla, taking care that

(omitted)

X the bulb containing the quicksilver is quite covered by the flesh ; it should remain there from five to ten minutes, and never be removed until the quicksilver has quite ceased to rise. It can then be taken out and read, the rise or fall being noted on the temperature chart. The little strokes between the degrees reckoning as fifths or tenths of a degree, must be carefully noted. The *register* of the thermometer should be shaken down to below 95° before taking a temperature. Temperatures are usually taken in the morning before nine o'clock, and in the evening between five and six o'clock, experience having shown that these two periods include the usual variations of diseases ; but they are sometimes, in cases of interest, taken more frequently. Sometimes the temperature is taken in the mouth, sometimes in the rectum, these places giving a more accurate result ; and temperatures so taken are generally one degree higher than when placed in the axilla.

The temperature should always be taken *before* the patient is washed in the morning ; if by mistake omitted, two hours should quite elapse before the observation is made ; it should be taken, as nearly as possible, daily, at the same hour and in the same arm-pit. Only those thermometers should be used that have been verified at Kew (many most unreliable ones are made and sold), and those of a well-known

maker preferred. Those made by L. P. Casella, of Holborn, and by Arnold, of Smithfield, may always be relied on for accuracy.

Patience and accuracy are required for these observations, for they are sometimes wearisome and uninteresting to the nurse. It is well always to register the temperature as soon as it is taken, for it is easy to forget or mix up the important little tenths of the degree.

The temperature of the body is of the utmost value in determining the nature of an ailment, especially in diagnosing infectious diseases ; and whenever there is a suspicion that an eruptive fever is incubating, the thermometer will decide whether there is a need for isolation or not. If the temperature is over 100° , and other symptoms correspond, then the patient should be kept apart until the disorder has declared itself.

In connection with this subject of the heat of the body, the nurse should note whether the patient sweats at night, a symptom of consumption ; or frequently during the day, indicative of weakness ; or in children, about the head, a sign of rickets.

150. *The Tongue*.—This organ gives most valuable diagnostic help to the experienced eye, first in the mode of protruding it. There is the unsteady, jerking movement of chorea, when the tongue is put out and

hurriedly withdrawn, and again hurriedly protruded; the trembling, uncontrolled protrusion of extreme exhaustion; the one-sided movement, indicative of paralysis; the tremulousness, pointing to fever or cerebral disease.

In tubercular disease the tongue is often bright red, glazed, hard, and dry; in fevers it is loaded and furred: when this changes to a brown or black hue, it indicates dangerous prostration; in all bilious affections the tongue is coated with a yellowish fur; in all inflammatory or irritative diseases the tongue is coated white.

The manner in which the tongue begins to clean teaches a good deal. When it cleans from the edges it is a sign of *rapid* and lasting convalescence; when from the middle, leaving a red glossy surface, the recovery is tedious and interrupted; when the crust is rapidly removed, and the under surface is raw or dark coloured, the prognosis is bad.

In infancy the tongue is often aphthous, indicating disorder of the digestive organs; this aphthous state also occurs in adults in advanced phthisis, or in severe diseases of the viscera, pointing then to a fatal termination.

In scarlet fever the tongue presents a "strawberry appearance," from the bright red papillæ showing themselves above the white coating.

Interior—Evacuations ; Bowels.

151. A nurse should never omit inspecting the fæces of the patients, especially of those recently admitted. She should be able to answer any question put her as to the frequency of the action of the bowels, consistency, whether loose or bound, smell if more than usually offensive, if containing particles of undigested food, slime, blood, or worms, if passed with difficulty, too easily, or unconsciously : on all these points she must be instructed. She should be quite clear in her distinction between looseness of the bowels and diarrhoea ; a nurse will say that a patient has diarrhoea when he is only suffering from a loose action of the bowels. Diarrhoea is a slight catarrh of the bowels, attended with an uncontrollable desire to stool, much discomfort, and sometimes pain, action taking place five or six times in the twenty-four hours ; such a slight disorder is often only a relief of over-burdened nature, and need cause no anxiety. It is a symptom of approaching convalescence in some diseases ; but in typhoid fever the state of the bowels requires most careful watching. Dysentery is a serious catarrh of the bowels, attended with great pain, prostration, the contents of the rectum are voided very frequently, streaked with blood and containing mucus ; in serious cases they are passed unconsciously. This disease is

always grave, and requires prompt and suitable remedies. The stools in typhoid are of a brick-dust colour; in jaundice, *light*, the bile being absent; from mercury, green; in dysentery, liquid, streaked with blood, containing slime and flocculent particles.

152. *Kidneys; Urine.*—The same observations above made apply to the evacuations of the bladder; and in all cases of grave illness a specimen should be set aside for testing, or, if anything unusual is observed in it, it should be reserved for inspection.

The foreign substances that appear in the water are *blood*, in cases of purpura, inflammation of the bladder, and injury to it; *albumen* in scarlet fever, diphtheria, dropsies, and diseases of the kidneys; *pus* in diseases of the bladder; *sugar* in diabetes, and various small substances, such as phosphates, epithelium, &c., depending upon the assimilating organs. The frequency and manner of passing it are valuable aids in diagnosing stone in the bladder; if passed frequently, with pain, in small quantities, and in an intermittent stream, the probabilities are very strong that there is a stone, and these symptoms should be reported to the medical officer.

In diseases of the kidneys it is often necessary to take an accurate observation of the quantity secreted by the kidneys in the twenty-four hours; therefore, *all* the water passed by the patient has to be saved and

measured at the end of that time : if any is lost it invalidates the accuracy of the observation. If we commence the twenty-four hours at 9 a.m., the bladder must be emptied at that hour, and the urine *thrown away*, because that which the bladder contained has been secreted by the kidneys from some uncertain previous period—the bladder simply being a reservoir to contain the secretion of the kidneys ; *after* this all water passed has to be saved, generally in a covered jug. When 9 a.m. again comes round the bladder must be emptied, the contents of the jug measured, the specific gravity taken by the urinometer, and then the jug may be cleaned for future use. Great accuracy is needed in this observation that the twenty-four hours be kept apart, that the *whole* quantity be saved, and that an accurate measurement be made and recorded. Some little thought is needed in avoiding any accident from the contents of the bowels passing into the vessel, the only way to avoid which is by the use of *two* vessels—in the case of children, a matter of some difficulty, but to be overcome by management.

153. *Stomach; Vomit.*—The matter vomited from the stomach should be saved for inspection. Note if there be any blood, bile, or phlegm ; whether it consist of undigested food, whether it be *fæcal*, whether of the appearance of “coffee-grounds” (a bad

symptom); at what time it occurs, relative to the taking of food or medicine; if persistent (a symptom of brain disease); if occurring only in the morning, if attended with pain, and if the pain is then relieved; if there is any smell, suggestive of poison or of spirits. Distinguish between *sickness*—the term expressing the sensation of nausea—and *vomiting*, the act of ejecting the contents of the stomach.

154. *Respiration*.—Observe if the breathing of the patient is laboured, quick, shallow, irregular, or catching; whether the nares are dilated; whether it seems to be attended with pain or difficulty; note in which position it is easiest; if accompanied by any unusual noise, such as crowing in croup, or the metallic sound that is symptomatic of diseases of the larynx; stertorous, as in apoplexy and extreme intoxication; snoring, pointing to enlarged tonsils.

155. *Sputa*.—The expectoration of a patient should be kept for inspection, and some idea formed of the quantity expectorated in the twenty-four hours; note if it is streaked with blood, if of a *rust* colour, if offensive, if easily coughed up.

156. Besides these observations, pointing to the condition of definite parts of the body, there are *general* symptoms and appearances to be noted, all of which may be of great value in arriving at a just opinion of the state of the case. The nurse must

ascertain the probable region of the pain and the nature of the pain, whether acute or dull, whether persistent or intermittent, whether depending on any local cause, such as exciting into action any one organ of the body; whether more acute by day than by night, whether disappearing when the attention is distracted and the mind amused, if brought on or increased by movement, if relieved by the applications ordered.

157. *Appetite*.—Observe if the patient take his food with any relish; if it is a fickle, fanciful appetite; if easily satisfied, or attended with constant craving for food; if morbid and depraved; if the act of taking food causes discomfort, pain, or vomiting, or excites nausea.

158. *Rest at Night*.—The night nurse should be able to report on the rest taken by her patients during the night; whether it has been sound and undisturbed, whether wakeful, restless, or muttering, whether decidedly wandering or delirious, whether taken best in the earlier or later part of the night, whether easily broken, what posture is taken for rest by the patient, if interrupted by screams or cries, whether the symptoms present abatement or increase during sleep.

159. It is the nurse's duty to report any symptoms which, in her judgment, may help the medical officer in arriving at a diagnosis. But just let me warn my

fellow-workers against over-officiousness ; an obtruding of trivial, silly remarks, indicative either of ignorance or forwardness. Whilst learners, they should also learn silence and modesty ; when they have won their own position, then they will know what they are talking about.

160. *Counting Pulse and Respiration.*—It may sometimes be intrusted to a nurse to count the pulse and respirations, and in case she is *told* to do it, she should have some knowledge of it beforehand ; and there can be no reason against any nurse, for her own instruction, taking the pulse and respiration of her patients : though I would warn her against drawing deductions therefrom, for it requires a very experienced, well-trained finger to fathom the mysteries of the beating artery. In health the pulse beats from sixty to eighty per minute, with even force and volume ; the respiration is sixteen, even and gentle. In counting the pulse, the three fingers should be laid lightly on the artery, so that the artery may beat *against* them : the rate, the force, and the volume being best judged in this manner ; for the respiration, lay the hand on the chest, just below the end of the breast-bone, and count the respirations : the nature and style of them can be ascertained by the eye.

161. *The Appearance of Wounds.*—When a wound heals by “first intention,” the edges unite at once ;

a serous exudation glues the cut surfaces together, there is no pus, and in a few days the edges are firmly united. This does not often occur. More frequently the wound opens, pus is secreted and pours out, and the process of repair is carried on by granulations. These granulations are really an appearance of the muscle. It looks irregular, like small grains, and when these are red and not too marked in their irregularity, the action of the wound is healthy; when these granulations are too brilliant in colouring, and too marked and puffed in appearance, we have what is popularly called "proud flesh," and this exuberant action requires checking. When a wound fills up from the bottom, the process of healing, though slow, is very sound; when the edges unite *over* a wound, making a bridge, this union is very apt to break down—it is not sound underneath—or to ulcerate. When the neighbourhood of a wound is very red, and the skin looks deficient in vitality, the ulcerative process is nearly sure to spread, and the whole of the diseased tissues will break down. When an abscess wound begins to pucker and the centre to be depressed, the healing process is terminating satisfactorily. When the edges of a wound are brawny and red, when they are everted or inverted, the wound is indolent and requires stimulating. On the contrary, when the edges are soft and

even with the surrounding granulations, when there is no red margin, the healing process is healthy. When the granulations protrude and point above the level of the neighbouring parts, it almost invariably indicates the presence of dead bone. When the wound looks dead, when there seems no action at all in it, it indicates extreme danger—a failure of the vital powers; a livid purplish hue indicates the same.

162. The pus or matter secreted may be divided into laudable or healthy pus, and ichorous or unhealthy pus. The first is whitish-green, not offensive, moderately thick; the latter is dark, brownish-green, very offensive, grumous, clotted, containing shreds of tissue and fibrine. Besides these two distinctive kinds, there is the *caseous* variety, consisting of thick clots, like curds, stringy, not easily discharged from the cavity, being squeezed out in lumps. This is characteristic of scrofulous inflammations.

When laudable pus changes into a more watery liquid, and at last becomes serum, it is a sign that the abscess is going to dry up. When, on the other hand, the *caseous* variety takes the place of healthy matter, the cure will be tedious and interrupted. When it changes to purulent, offensive pus, the wound is doing badly; a cleansing, stimulating treatment is required.

SECTION G.

A FEW HINTS TO SISTERS ON THEIR DUTIES.

163. A GREAT deal has already been said of the training necessary for a sister in a hospital, but a few words will hardly be out of place on the special duties that devolve on a sister when, her training being complete, she enters on her duties.

164. A sister should have made herself thoroughly acquainted with the work required in her ward, not theoretically only, but practically, from the polishing of the grates up to the difficult complications of a serious case, so that she may be looked up to as the fountain of all instruction, the head of each department, and, moreover, may be able to give practical hints and suggestions to her subordinates. Let her set the example of a conscientious performance of work, and let her dignify labour in her own person by being ready in any emergency to give a helping hand. All work is honourable, and a sister who holds herself "above menial labour" is unworthy of the high position she occupies. Her nurses will hold her in the highest esteem and respect, and will do their duties the more faithfully, for knowing that their chief has

done the same, and is ready to do so again if needs be. Think you not that the angels stood in adoring praise round the carpenter's bench in the Nazareth home, and sped away to "sweep the crossing" or "rule the empire" with increased zest and fervour?

165. The sister is responsible for the entire well-being of her ward, for the individual cleanliness of the patients and of the entire ward, for its efficient ventilation, for its comfort, order, cheerfulness, and regularity. Insisting on punctuality, she must herself set the example: the first in the ward, the last to leave; her watchful eye must command the whole, whilst her unwearied patience, brave-heartedness, and cheeriness must brace up alike patients and nurses to suffer and to do. Praise from her should be praise indeed, and blame, because scantily but justly bestowed, should be real and lasting in its effect.

166. Beyond the ward, her watchful care should follow the nurses into their daily life, should see after their personal comforts and their bodily health, should urge on them the necessity for personal cleanliness, thorough ventilation in their rooms, the wisdom of regularity at their meals, and of availing themselves of the opportunities given for out-door exercises. Her judgment and tact, with provident foresight, should forestall their failures in strength, and by lightening the duties or changing the employment,

avert the threatened break-down. Minute attention to these little details makes all the difference between the smooth running of the machinery and the falling of it out of gear.

167. Let the sister also be careful to maintain a high moral tone in her ward and among her nurses, by steadily setting her face against any light or frivolous conduct, flirting, or silly jesting. It *is* difficult among so many, and where the relative positions are often so inverted, to maintain exactly that proper distance that is required; but it can be done; and if fewer opportunities were given to the younger nurses to flirt with the students or junior staff, and if no talking were allowed in the wards but in the presence of the sister, a decided head would be made against the demoralising influence of a hospital. Let every woman remember that she makes her own position, and that with her it rests to claim that respect and homage which is hers by right, in virtue of her modesty and her sex.

168. It is a position of great temptation in which to place any young woman, but the loving Christian watchfulness which a sister may exercise over her nurses may save them falling a prey to the snares that surround them; and a sister *is* responsible for the souls of her nurses, and by her example they stand or fall. My fellow-workers, with you it rests to make

your wards quiet, peaceful, well-ordered, and happy, consistent with their surroundings and with their inmates, or to permit the solemn scenes of sickness and death to take place alongside with the empty, giddy frivolity of flirting girls and silly young men. These things ought not to be; and we cannot wipe off the stain from our profession until we each determine in our own sphere to do our utmost to reform these evils.

SECTION H.

THE NIGHT NURSE.

169. THE plan of arranging night duty is very different in each hospital. In one, the night nurses are permanently kept to that duty, never being placed on day duty; in another, they are changed periodically; in a third, the day and night duty dovetails in changing every third night, so that no extra staff is required. In one, the most experienced nurse is placed on duty; in another, an experienced nurse and a probationer; in a third, no selection is made; in a fourth, probationers are selected for the work; in a few hospitals, the nurses are drawn from the outside. This latter is so bad that it cannot be treated of as a system at all.

170. Of these various plans there is only one that recommends itself to my judgment, and that is the one of changing the nurses periodically. The advantages of this plan are: that the nurses are ensured a change of work, so much needed to prevent the feeling of monotony inevitable in the life of a nurse; the change of work also brings with it a more perfect training, consequent on the greater variety of cases

passing under the nurse's hand ; it also gives an opportunity for lightening the work of a failing nurse by changing her to that part of the ward which is lighter, without causing discontent or jealousy among her associates.

171. The period of night duty should not exceed one month ; most nurses find a period of three weeks sufficiently trying. The nurses should be entirely free from the wards during the day ; they should have at least eight hours' undisturbed rest, the remainder of the time being allotted to recreation and exercise. They should take a good meal before going on duty, and at least two others during the night ; and after the night nurses have come on duty, the day nurses should be prohibited entering the wards, so that all temptations to gossiping or feasting be removed ; and the same rule should apply to the night nurses among themselves whilst on duty.

172. In the selection that is made of the nurse for night duty, the rule that has recommended itself to me is that no nurse should be put on night duty until she has been six months in the wards ; that she should *not* have a probationer associated with her : this, unfortunately, in nine cases out of ten, leading to the junior being made the slave of the senior. If possible, have two full nurses on together, and arrange their work independent of each other,

the nurses taking their turn in rotation, without any favouritism or selection.

173. The duties of the night nurse are so onerous, and the responsibilities of such gravity, that it is hardly possible to over-estimate them. Whereas the day nurses do their work in the light of day, with the eyes of the patients, doctors, and sisters on them, the night nurses are shrouded in the gloom of night, no one to check or report them but themselves, greater incentives to self-indulgence than to self-denial; and yet the charge of all these serious cases their life or death, in their hands; in most hospitals left without supervision or control:—is it to be wondered at that we hear of patients being turned out of bed that the nurse may rest through the night, patients dying unattended, the wants of the living neglected, food and stimulants not given, or being the refreshment of the night attendant? If a supervision be required during the day, tenfold more is it during the night; and the staff of *no* hospital should be considered complete without a night superintendent. And I would suggest that the same rule of rotation should govern the night superintendent as the night nurses; but this is a matter for the individual arrangement of each hospital.

174. Every ward should be provided with a slate, whereon each day nurse should write her instructions

for the care of her patients, the hours at which medicine, food, &c., are to be given, and any other particulars necessary, and this should be inspected by the sister before her day nurses leave the ward, and by her be given to the night nurse, and *she* must see that these instructions are comprehended by the nurse. The night nurse should write her report of the night on this slate, the actions of the bowels, &c.; and this should be given to the sister on her first visit to the ward in the morning, and be kept for the inspection of the day nurses, who ought to acquaint themselves with the manner in which their patients have passed the night.

175. The hours stated for the administration of food, &c., during the night should be observed with the utmost conscientiousness and punctuality, though it is well to leave a little discretionary power with the nurse, that she may avoid unnecessarily disturbing a patient when another hour might do for the medicine. It should be the great aim of the night nurse to secure her patients as much undisturbed rest as possible.

If for any reason the night nurse omits to observe the prescribed hours, let her be sure to report the fact in the morning, stating her reasons for so doing.

176. The night nurse must enter on her solitary

watch with a large stock of *patience*, for assuredly large demands will be made upon it during the night; but perhaps, if she remembers that all gentle, loving care is accepted by the Master as though done to Him, that He is there in each one of those sick beds asking these little attentions at her hands, she may feel her troubles lightened. The nurse should by no means count it her *right* to be able to work or read during the night; if she has the opportunity of a quiet hour or so, it is an accident; but if she is kept on her feet all the time, it is nothing more than she has to expect, nor should she feel it an injury if the interruptions be many and manifold.

177. I would seek to impress on night nurses that unconscientiousness and deceit are grave sins, and while doing injury to the patients, do so much more to the nurse herself, deadening and blunting her moral nature, leaving indelible marks behind them, making her quite unworthy of the high and dignified trust committed to her charge.

178. The duty of making the patients' beds in many hospitals is assigned to the night nurse; but this seems to me an error. She must be feeling exhausted at the end of a long night's watching, and this, therefore, almost the most fatiguing part of a nurse's work, cannot be undertaken with energy; besides, the temptation must be very strong to pass

some over, to neglect turning the mattresses, or, on the other hand, to turn the poor sick people out of bed too early in the morning so as to get it over quickly. The question is full of difficulty, and requires much thought in arranging ; but the comfort of a sick person depends much upon his bed-making, and, therefore, ought hardly to be left to the unaided energy of a jaded night nurse. It is difficult enough to get the mattresses turned and the beds aired by the day nurses ; the inference is likely that neither the one nor the other is done when left to the night nurses alone.

The wards *must* be ready for the visits of the medical officers in the morning ; but if the day nurses were to come on an hour earlier in the morning so as to assist, and go off an hour earlier in the evening, it might be managed, and the work be done in a much more thorough, satisfactory manner.

179. When serious and undecided cases are committed to the care of the night nurse, it is well for the sister to instruct her as to the probable advent of symptoms and complications, with their relative significance, so that the nurse may not be taken unawares or unduly alarmed. This will stimulate her watchfulness, and teach her to know when she ought to summon assistance, and induce in her habits of

observation, and conduce to accuracy in reporting them in the morning.

180. It is a good plan to have some means by which the night nurse may communicate with the sister or night superintendent without leaving her ward, either a speaking-tube or a bell.

SECTION I.

A FEW DEFINITE INSTRUCTIONS ON NURSING SPECIAL DISEASES.

181. THERE are a few specialties in nursing, attention to which may sometimes make all the difference to the patient of life or death, and these I just wish to point out.

Fevers.—All fevers are exhausting, from the rapid consumption of tissue that takes place during their course ; therefore husband the strength of your patient. Keep him lying down. The patient should not be sat up on any account, either for feeding or washing. Great regularity should be observed in the manner of feeding. The food should be given in definite quantities, at short intervals, and be of the simplest kind : beef-tea, milk, and eggs beaten up in the milk—this is *most* essential in typhoid fever or diphtheria, and on minute care in this particular will depend the recovery or death of your charge. Diligent feeding every quarter or half hour will sometimes turn the scale. The utmost quiet must be insisted on ; meddling and officious friends must be kept outside the door, and the one or two nurses have entire and

uninterrupted care of the patient. No change should be made in the diet until sanctioned by the doctor. In typhoid fever, especial diarrhœa must be looked on as an unfavourable symptom, and when occurring at the end of any long exhausting fever is to be watched and guarded against. Report it at once to the medical attendant.

182. *Diphtheria*.—The preceding remarks generally apply to nursing in this case; but when the laryngeal mischief requires the operation of tracheotomy, there are then special points to be attended to, special dangers to be guarded against. The tube that is introduced into the throat for artificial respiration needs to be securely tied round the neck, or the restlessness of the disease—especially if the patient is a child—may loosen it, when, if it slips out unperceived, suffocation may be the end. It is most effectually fastened by tapes tied at the back of the neck. The *inner* tube needs to be kept free of the secretion, for which purpose it must be taken out, cleaned, and replaced; and if the outer tube is in its place there is no danger in this operation. A light fold of muslin placed lightly over the orifice will filter the raw air before it passes into the lungs.

Any secretion that is coughed up through the tube should be fairly examined for shreds of false membrane or casts of the air-tubes, and such should be

saved for the doctor. The quantity of urine passed should be noted, as this disease affects the kidneys, sometimes suppressing it entirely, and a specimen is daily required for testing for albumen. This disease requires unceasing watchfulness and care to nurse it to a successful termination, the most conscientious regularity being observed in the feeding, that the quantity ordered be taken.

183. *Diseases of the Heart.*—Keep the patient from any sudden change of temperature. Give plenty of props in bed, and be careful that the patient does not slip low down during the night ; this may cause death from altered position of the heart. If sudden dyspnœa come on, a draught of twenty to thirty drops of chloric ether is very serviceable in restoring the power to breathe. Give plenty of fresh air and keep the patient warmly clothed. Note the quantity and quality of the water passed in the twenty-four hours.

184. *Diseases of the Chest.*—The patient generally chooses that position which is most easy, and that is nearly always raised up in bed ; and when the patient requires to be changed from one bed to another this posture should be maintained. Avoid all sudden changes of temperature or of posture. Remember that the respiratory organs and muscles are over-taxed, and that the heart has more than it can well do in maintaining the circulation. For this reason, an over-

heated atmosphere, close and confined, does real injury to the patient, and is the source of positive suffering. Observe and save for inspection the sputa, and note the quantity expectorated. When there is fluid in the chest, incline the patient on to the affected side, and arrange the pillows so as to throw up the chest and decline the head a little backwards. A little thought in these matters and study of the case will make all the difference to the comfort of the patient. Always support the hollow of the back well—it is an immense saving of fatigue to the invalid.

185. *Dropsies*.—The position of the patient will be regulated by the locality of the disease. If the fluid be in the chest or abdomen, a high posture will be most comfortable, as then the water will sink down from the vital organs; and care must be taken not to lower the patient suddenly, as then the fluid might quickly alter its place, with serious, if not fatal, consequences. If the water is in the legs, sometimes one posture is easier—the legs up—or sometimes another—the legs down. This disease is always characterised by extreme restlessness. Look out for all points of pressure, especially the heels; the skin is half-dead, and bears pressure very badly and heals slowly. Instructions how to measure the daily quantity of water were given at p. 152.

186. *Inflammatory Diseases of the Extremities*.—

Where there is erythema, or erysipelas, or inflammation of the veins, the limb should be raised above the level of the body, and all points of pressure carefully guarded, as the state of the skin is similar to that of dropsy. A bed for the limb, made by tying a pillow round it and then slinging it up, is the most convenient and comfortable.

187. *Rheumatic Fever*.—A patient should at once be placed on a water-mattress, the extreme pain caused by movement making the inspection of the back almost impossible, and any change of posture being torture to the patient; only by using this can comfort and prevention of bed-sores be ensured. Great relief is given by wrapping the tender joints in cotton wool; and much care must be bestowed on the position of the limbs, that they be kept straight in a natural form, and also that, as convalescence sets in, they be kept supple by passive movement. This is done by grasping the limb above and below the joint, and moving it in a natural manner. The pain that is always felt at first will pass off as the natural fluid in the joint begins to work in it and the adhesions break down. Too much stress cannot be laid on this treatment, as the joints are very liable to be permanently fixed in rheumatism. Each joint should be worked separately for about five or ten minutes at a time.

188. *Burns*.—If the injury is likely to cause contraction, by being in the neighbourhood of a joint, or of an extensor or flexor muscle, great care must be given in keeping that part *extended* during the formation of the cicatrix, or one of those troublesome bands and contractions will be formed which are so disfiguring, and are so troublesome to break down. A weight attached to the leg or arm—if the burn is in a limb—is the most effectual.

189. *Stone*.—After an operation for stone, keep the patient absolutely quiet, lying very flat in the bed, with the knees tied together. The bowels should, if possible, be kept inactive for twenty-four hours, and the water be allowed to run away. Look out vigilantly for hæmorrhage, and seek surgical aid at the first sign of trickling. *Before* the operation the bowels should be thoroughly emptied by a dose of castor-oil, succeeded by an injection. After a week has passed, the danger of inflammation is much decreased.

189a. *Amputation*.—Keep the stump well supported by sand-pillows, and look out for bleeding. A very troublesome complication is a continual starting of the limb, very distressing to the patient. A 4lb. weight run over the end of the bed, and attached to the stump by a stirrup and cord, as for hip disease, has been found successful in steadying the unruly limb.

190. In all diseases that cause a great drain on the fluids of the body, such as diarrhœa, dysentery, cholera, or fevers, the body craves for a supply of moisture, and it is positive cruelty to withhold the cold water that nature cries out for, with the mistaken notion that it will do harm; on the contrary, if the water is pure, filtered or boiled, it will do good, by supplying the fluid-matter to the blood which is being rapidly drained away from it. If the blood becomes thickened it cannot circulate in the vessels. For this reason ice is so good for the patient to suck.

SECTION J.

ON NURSING SICK CHILDREN.

191. ABOUT forty years ago, little children were hardly thought of as needing special nursing or treatment ; they were either forgotten or passed over in the mass of patients that crowded into the general hospitals. They died as little infants in thousands, trampled down under feet in the race for life, or they grew up stunted and deformed, dragging on a weary, sickly existence, uncheered by the laughter or gaiety of childhood, unsolaced by the tender love of mother. If they claimed their right to the great medical charities of our city, their wee forms, strangely out of place in the large beds in the large wards, could hardly enforce attention ; they were looked on as intruders and treated accordingly ; the child laughter or the child cry jarred on the older patients ; and the little sufferer learnt to bear its pain in silence, and was content to utter its plaint unheard. The doctors hardly knew how to handle these tiny frames. It was something like auscultating a turkey or percussing a goose ; and their unspoken language of disease was hard to interpret. The quick, active life, difficult to treat at all, required

patience, and patience is time-taking, and time is scarce in the hurry of a large hospital. The nurses resented the advent of these intruders, for they made large demands on their time, and larger still on their patience; and so they entered not at all or with difficulty, and still these poor little lives pined away, forgotten and neglected.

But some large hearts in that great city were thinking of the little children, and some ears were beginning to listen to their plaintive cry; some willing feet were already treading the alleys of that mighty place; some skilled hands were finding out the suffering babes, and with gentle coaxing touch were winning them back to life and love. And kind thoughts were busy for them, and great deeds were planned for them, until at last the little children had a hospital all to themselves. All honour to him who did it. The little children are weaving a crown for him; and each little soul that wings its flight from those walls carries a leaf with it to place there, or each little pair of feet that patter out of its doors to tread again the road of life, walk in his strength who has pleaded and won its cause. That man has built his own monument in his lifetime, and to him is given to see thousands pressing on and following in his footsteps even whilst he yet lives.

The little children have now their own hospitals,

in large hospitals their own wards, their own doctors, their own nurses, even their own scientific treatises, and so they must have their own chapter in this little manual.

192. A most excellent little treatise on nursing sick children has been written by Dr. West, the founder of the Hospital for Sick Children in London, ("How to Nurse Sick Children"); but I know that he will excuse me for treading on the same ground if I contribute a few thoughts from the nurse's point of view.

There are two prevailing delusions with regard to the nursing of sick children which I seek to dispel: one is, that they require but little nursing at all, their ailments being small, like themselves; another is that nursing them is a bad preparation for or unfits the nurse for attention on adults. How erroneous these opinions are a few months devoted to nursing sick children would soon show.

193. There are many difficulties that beset the nursing of sick children, and these are absent in the case of adults. Children require to have *everything* done for them, nor, save in exceptional cases, can they wait upon each other: this necessitates a larger nursing staff and an increased expense; they are unable to give an intelligent account of their ailments, and their ideas of locality are misleading and false;

they cannot be therefore depended on, or render assistance in the treatment of their maladies. Those who nurse them must be apt at interpreting the signs of disease and the unspoken language of sickness in the little patient. In children, disease runs a much more rapid course, either to convalescence or to death; symptoms succeed each other in appallingly rapid succession; and before either doctor or nurse has realised that the patient is ailing, death has laid its hand on the victim. Physical signs are also much exaggerated; the exquisite balance of life is quickly shaken, but nature as quickly re-adjusts it: for the recuperative power is great in childhood, and the best treatment often is to leave them alone, their powers of physical endurance being most elastic.

The utmost watchfulness is demanded of their nurse; quick and accurate powers of observation; an intuitive knowledge of sickness, its signs and manifestations; and an inexhaustible store of patience, cheerfulness, control of temper, the power to enter into the heart of a child: for the child's eye is quick to discern its friends and to reject its enemies; and, moreover, that sound judgment and common sense that can temper discipline with love, withholding with a firm hand the unwise indulgence, loving the child with a great unselfish love.

There are few occupations in nursing so satis-

factory as nursing a sick child through a serious illness back again into health. The recovery of the patient is so complete, its helpless dependence and unbounded faith during sickness is so touching, its reward of gratitude so ungrudging, that the guerdon far surpasses the work ; but if the sick child's nurse finds a royal payment awaiting her, she also finds sorrow, disappointment, and toil strewn her path to it.

194. The rule of daily work in a children's ward must of necessity be much the same as in an adult's ; but the nurse must spend much more time over her patients. It must always be remembered that soap and water is of nearly equal value as medicine ; the skin of a child is so tender, so prone to break, so intolerant of pressure, that it requires the utmost attention. Washing, if possible, the back every day, powdering and anointing it, are the only preservatives. In the case of infants, the daily bath should be the rule, being an invaluable stimulant to the action of the skin, and the only preventive of a chafed or abraded skin. Where the treatment of the case requires splints or complicated appliances, it is absolutely necessary to keep a vigilant watch upon any part where there is pressure, especially over any prominences ; a pad made from a piece of india-rubber about a quarter of an inch thick, with a hole in the centre, will be found very useful in the treatment of club-foot ;

but many of the more complicated apparatus for extension cannot be successfully applied for any length of time, on account of the tender skin of the patient. The more simple all such contrivances are, when intended for children, the more surely will they accomplish their end. In the list of simple remedies at the end of this book will be found some useful preparations for the cure of the broken skin.

195. A great difficulty with which a sick child's nurse has to contend is its untrained habits. There is constantly added to serious illness the dirty ways of childhood, and where the little one often understands only the correction of a blow they are tedious to cure; *but it can be done* by patience and firmness, and no nurse should be considered competent for her work until she is able to control the child in this particular.

It must be done by inducing habits of regularity. Let the action of the bowels and bladder be solicited first after meals, and twice during the night, accompanying the discipline with words of praise or blame, as required; some slight punishment might visit any return to former bad ways. The very young children should be attended to every two hours; and no nurse should ever be permitted to leave her children sitting in wet or soiled linen for a moment: it is a grave fault and inexcusable laziness.

196. The filthy habit of wrapping up a child in a napkin is only encouraging laziness on the part of the nurse and bad habits in the child; except in cases of paralysis, no child requires that part of its wardrobe after six months. The nurses should be trained to attend to their children at stated hours, and be attentive to the little moan of discomfort which in the night is an almost invariable signal. If a little more care were bestowed in this department of nursing, there would be fewer sore backs and chafed bodies; and the knowledge and authority of the sister is here as much needed as in the supervision of the medical treatment.

It is a disagreeable part of nursing; but if a nurse is successful in keeping her children clean by day or night, she may then rank as A1 on the staff.

197. In an opposite direction care and judgment are needed not to induce diseases of the bladder or rectum, by yielding to the fidgets of the child—often a weapon in their hands to revenge themselves on the nurse. When those organs are in a state of health, an interval of two hours is not a bit too long, and a wise discriminating nurse will endeavour to establish such healthy action. Children may bring about a state of disease, and inability on the part of the muscles to act satisfactorily, and it is not wise to yield to their fidgets; but here the utmost discretion is needed

to discriminate between a fidget and a real need. Children need to be taught self-control in this matter as in others, also habits of decency and self-restraint.

198. It is a great problem what amount of correction is justifiable in dealing with sick children; correction there must be; but two rules should be invariable in all wards or hospitals—first, that no blows or corporal punishment be, on any consideration, admissible, second, that all correction be placed in the hands of the sister, or superior. A little ingenuity will soon devise such a mode of correction, that the maximum of moral influence will be attained with the minimum of bodily discomfort; a wise rule will compass that happy mean by which, while a larger latitude is allowed for the vivacity and energy of childhood, certain bounds are set up which must mark the verge of the law to the offender.

Transgression beyond this boundary should be visited with some mark of displeasure. A blow is the rough and ready punishment of the hireling who has not the patience to wait to reason; but the law of love should rule inside the walls of a children's hospital, and the fractiousness of illness, or the unrestrained energy of convalescence, should be dealt with by the firm hand of kindness.

199. On the other hand, sickness should not open the door to injudicious spoiling and pampering—

the one extreme is as mischievous in its effects as the other. There is no reason shown in giving the child what it cries for simply because it is ill; the waywardness of infancy still exists, and will expend its energy in exhausting patient and nurse. A little tact will divert the child's mind, and spare those painful contests for supremacy. Neither in the matter of diet is it wisdom to yield to the fancies of the little invalid; they are countless and unreasonable. A wise nurse will obey the rules of diet laid down for her patient without consulting the erratic tastes of the child. Milk is Nature's own food, and is invaluable in dieting sick children; the taste is in abeyance in sickness, and that form of nutriment is the best which is the lightest and the easiest assimilated. Sweets, and tempting dishes, or cakes, pastry—the ambition of the child—heavy puddings, these things, at all times trying to the little stomach, are harmful when it is weakened by sickness.

The diet in chronic cases or in prolonged convalescence is most trying to arrange, but variety may be secured by the introduction of varied forms of cookery—mutton chops, eggs, fish, &c.—without introducing harmful forms of food, and if the dish appears as an unexpected pleasure, this alone will generally bring the appetite.

Children, especially those of the poor, are much

too prone to dainty and wasteful habits ; it is, therefore, true kindness to educate them in habits of economy and care by checking the idea that illness is an excuse for waste and fancifulness. In this way much more can be done with children than with older people, for they yield readily to present influences, and soon forget the habits of earlier days.

200. In nursing children it is wise to begin as you intend to go on ; in a ward or hospital there is not time to amuse the children individually all day, and therefore do not attempt it ; they will soon accommodate themselves to the change, and will appreciate doubly the few moments you can spare to “set *assize* of me ;” the little babies will learn to be good in their beds, or play by themselves on the floor, if only you do not get them into the habit of being nursed, and this plan will save many a tear and passion. Do not forget them whilst busy here and there—a word, a smile or pat, will cheer them with the idea that they are in your mind, and they will speedily make you a kind of sleeping partner in their games.

201. It is the best plan to bath sick children, if possible, in the morning ; the fatigue of the exertion is met by the refreshment gained from the night’s sleep ; they are also less liable to a chill. I am referring to those who are weak and kept to bed. The bath should

be invariably prepared before the child is put in, and then the nurse should be with the child until it is taken out, or at least be on the watch against any accidents.

202. It is a good plan to secure as long a night as possible for children—twelve hours is not one bit too much for them when they are very young or recovering from an illness. Give them plenty of light and *fresh* air in their sleeping apartment, and they will thrive like plants, and if they are not allowed to play or wake each other up in the early morning, they will soon learn to sleep even in a bright light. The more sunlight that is given to children the better they will grow, with clear, healthy complexions, for sunlight has a direct chemical action upon life; it develops and draws forth the vital powers, acting on the human frame as on vegetation. It is therefore a mistake to shut up children in darkened, close nurseries; it is like putting the plants down into the cellar.

203. If these young ones were accustomed to light and air from their earliest infancy, we should hear less of phthisis, bronchitis, diphtheria, &c. Let the baby be well and warmly clothed, and there are very few days in the year in which it may not be taken out, or have the outer air admitted into its nursery; and it will grow up much stronger, and better

able to battle against the changes of temperature in this uncertain climate. That mother would be judged a monster who would knowingly give her child poisoned milk, or who should deny it food ; but that mother who with pains and trouble secures a poisoned atmosphere for her children by keeping the wholesome air outside, and denies them the full benefit of the sunlight, is acting an equally unnatural part : give your children light and air, and you will give them health and strength.

204. This chapter must not close without a few words on the feeding and bringing up of infants. With the children of the rich it ought to be simple enough. Nature has provided the fitting food, so long as they require it ; but, unfortunately, false delicacy, or an unwillingness to face the necessary self-denial, makes many a woman forego the sacred duties of motherhood ; the babe is either nursed at the breast of a stranger, or brought up artificially, and the constitution thereby endangered.

In the case of the poor it is not so simple ; frequently they are not strong enough to support two lives ; Nature's supply must therefore be supplemented, or set aside altogether. In whatever way the infant is brought up, milk should form the staple of its food, and until it is past seven months, milk should form its *sole* diet. Cow's milk diluted with one-third water,

with the addition of a little sugar, is the best substitute for the mother's milk ; this, however, sometimes disagrees with the stomach ; a little condensed milk should be substituted, diluted quite two-thirds with water. On this the child will very often thrive when all other milk, even the mother's, does not suit it. It is always wise to give the condensed milk a trial. When there is a tendency to diarrhœa, a little lime-water, substituted for the plain water, is generally quite sufficient to correct it.

205. Those who have much to do with the poor will know how difficult it is for them to get good milk at all ; its price, and the adulteration of the vendors, places it almost out of their reach ; and to prescribe milk in some cases is as useless as prescribing wine. The introduction of condensed milk into the homes of the poor would be a wise social economy. In the country it is frequently more scarce than in London. I knew of one family in the country that was brought up entirely without milk. This difficulty must therefore be faced ; and when milk is ordered for the child, ascertain that it can have it, and do not blame the poor mothers for giving the child "just anything they have," when, poor things, it is all that they can do to save the child from starvation. The distribution of milk to the poor would be a cheap and efficacious form of medicine.

206. When the child has reached seven months the appearance of the teeth in the gums is a sign that a more nutritious diet may be commenced ; and whilst continuing the free use of milk, a little sopped bread, arrowroot, or Robb's biscuits, may be added ; at nine months weak beef-tea may be taken ; but care should be taken not to overtask the weak digestive powers of infancy. This, too, is caused as much by too frequent feeding as by improper food ; it is a bad plan to feed the child whenever it cries, a good cry will do it no harm ; if the child be fed every two hours, it will be ample, and twice in the night. The digestive organs are wonderful in their mechanical regularity, to which they should be habituated from birth.

207. Serious damage likewise is done to these delicate organs by reckless dosing. Nature is best left to manage her own affairs, and if she must be helped a very little castor-oil, a quarter or half a tea-spoonful, is all that is required. In mature life a constipated habit is often induced by over-dosing in childhood. Our organs are all intended to perform instinctively their own office if we only give them time. Do not be uneasy because twenty-four hours have passed without an action. If the child is easy and quiet, you may take it as an indication that there is no need for your interference ; very probably the twenty-fifth hour will see the bowels relieved.

208. If the child suffers from wasting and exhaustive diarrhoea, change the form of the milk, and give from half to one teaspoonful of brandy in the twenty-four hours; in many cases this has helped most importantly towards saving the child's life.

209. Another error on the side of injudicious feeding is that of prolonged nursing. The cutting of the teeth is Nature's hint that it is time to wean the baby. The mother's milk does not contain sufficient nutriment to build up the growing child; besides, it takes the place of more sustaining diet. It is equally selfish, and it is very disgusting to see a child of eighteen months or two years at the breast. Rickets, curvature, or some other deformity, is the general result, or a weakened constitution.

210. We want to infuse a little more common sense into the bringing up of the babes, a little less pandering to our own selfishness, a little more daring to yield to the laws of Nature. Discard stays, tight waists, high heels, low dresses, ill-ventilated rooms, hot-house education, late hours, irrational feeding; let us dare to see our children free, frolicking in the light and air and rich young life which God has given them, and then we may hope to see our children's hospitals half-emptied, and our young ones growing up strong and stately "plants of renown."

"The little health of ladies," and the hysteria of the growing girl would then be a thing of the past, for like wise gardeners we should rear our sapling or seed wisely, feeling sure that a fair healthy plant would crown our labours.

SECTION K.

ON INFECTION.

211. INFECTION or contagion is an enemy whose existence must be recognised, and with whom doctor and nurse must do battle if they are successfully to defend their charges against his assaults. He is invisible, only betraying his presence by his deeds, and therefore the more difficult to be vanquished; but he has a dire foe in oxygen, and no more able partisan can be called into our aid than this all-pervading health-giving gas.

212. It is still an open question, and one over which many battles are yet to be fought, as to what constitutes contagion, but its results are self-evident; there are certain diseases that pass from one person to another, either by personal contact, or by inhaling the same atmosphere; and as a rule one attack of the disease secures immunity from another. Of this kind are scarlet fever, measles, small-pox, whooping-cough, and chicken-pox; there is again another class of infectious diseases which seem to be propagated by the atmosphere or water, and persons exposed to similar influences are alike attacked by them; but

if the patient is removed from the unhealthy atmosphere, as a rule the disease is not conveyed to another person. In this class are typhoid and typhus fever, diphtheria, gaol fever, and cholera. In all cases of infectious diseases the atmosphere of the patient is a source of danger, and it is most essential to surround the sick with plenty of fresh air, so that the danger may be lessened; to use on the person some antiseptic, such as carbolic or chloralum, and to be sure of disinfecting the excreta by some similar disinfectant. If these precautions are taken, it is not only possible but safe to nurse the last-named diseases in the general wards without fear of their spreading, only this proviso must be insisted on, that the ventilation of the ward be free and complete, so as to dilute rapidly the malarious atmosphere of the patient. The nurses and attendants should be careful to keep up their own standard of health, as the contagious germs select as a fitting soil a debilitated, exhausted constitution, but they fall harmless on a healthy soil.

213. The reason why malarious fevers spread is that they generally break out in crowded poverty-stricken localities, where they find victims ready to yield at once, and atmospheric surroundings most favourable to their continuance, or they are carried into the homes of the rich either by contaminated water, milk, &c., and spread only so long as these

elements are in their favour. If the wards or houses are kept closed up, the fresh air being excluded or only partially admitted, the contagion will lurk in corners, and show itself at uncertain intervals: the only way to minimise the danger is to turn the foul air out by the presence of the fresh, and then, with the free use of antiseptics and soap and water, we ought to be able to count on checking the disease.

214. In dealing with fevers of the first class, such as scarlet fever, measles, &c., nothing but prompt and effective isolation will check the contagion, and as all persons are liable to these diseases who have not had them, our duty to the community is to remove them as soon as the sickness has declared itself, into some separate part.

215. In measles, the infectious stage being the first, when the coryza shows itself before the rash appears, it is most difficult to prevent the spread of the disease, and among children it spreads like wild-fire; but in scarlet fever, as the infection is not so declared until desquamation, prompt isolation will generally check its further progress.

216. The nurse engaged in the care of infectious cases should wear washing dresses, *short in the skirt*, so that she does not sweep about the dust and particles of skin on the floor; she should wash her hands after attending to the patients, and when

leaving her duties should change her dress and top skirt, and not enter their room again until she has resumed her washing dress.

217. All linen used on the beds of the patients should be rinsed out in a solution of chloride of lime, carbolic, or Condyl's fluid, and be hung out in open air for at least *forty-eight* hours, before being sent to the wash. Blankets and woollen articles must be stoved at a heat of 200° before being washed.

The same rule applies to all vessels used in the room.

218. A sheet sprinkled with carbolic solution and kept constantly wet should be hung outside the door. This is a very effectual way of keeping infection from spreading when the patient is nursed in a private house. All windows in communicating passages or staircases should be kept open, and intercourse between the infected part of the house should be interdicted. Remove all carpets and curtains. After the disease has run its course, and the patient is pronounced free from sequelæ and infection, a period varying from four to eight weeks, according to the severity of the attack, the patient should have a bath, this, in fact, being the last of several, and have an entire change of clothing; he may then safely mix with others; books, papers, &c., that have been handled by him during the illness being burnt. The room

must be properly disinfected, and then cleaned and re-papered before being used.

219. *To disinfect a room*, take half a tea-spoonful of black oxide of manganese, two tea-spoonfuls of common salt, mix in a saucer, and pour thereon a few drops of sulphuric acid. Carefully close all windows, doors, and chimneys, before placing the saucer, and then leave it to fume for twenty-four hours. One saucer is sufficient for a small-sized room. At the end of the time open the room, and set open all windows and chimneys, and leave it for another twenty-four hours ; after that time the room may be safely entered for cleaning purposes.

220. If cases of infection are constantly recurring in the general wards in spite of prompt isolation, probably the ventilation is in fault, the wards are perhaps overheated, the windows or ventilators not kept sufficiently open, sufficient care not shown in removing the infected articles, or some such omission ; if a current of air be kept passing through the ward, it ought to suffice to turn the intruder out before he has time to do much mischief.

Success in speedily stamping out infection may be taken as a proof of a healthy hospital.

221. *Whooping-cough* is an exception to all that has been said previously ; it is decidedly infectious, but in what manner it is conveyed is a mystery ; it is

certain that children take it the one from the other, but it follows no known law in its course—a child in another ward is as liable to be attacked as one in the next bed. Personal contact for a few minutes, or being in the same room with a child suffering from the complaint, seems sufficient to communicate it. The infection does not appear to be conveyed through a third person, nor does it seem to lurk in the clothing of the patient. Isolation stays its progress, but the effect of placing whooping-cough cases together has hitherto only had bad results; they seem to intensify the contagion in the atmosphere. The complaint is treated most successfully when the child is kept apart and allowed free out-door exercise, and taken under medical advice.

This disease, by its erratic nature, gives us no opportunity of satisfactorily making experiment of disinfectants. Those which affect the atmosphere, such as the carbolic spray, seem to be indicated, but no satisfactory data yet affords us any clue to the amount of control which they exercise over the disease.

One attack of whooping-cough is supposed to secure immunity from another; but there have been exceptions to this rule. It is essentially an infantile complaint, and children are most liable to it before the age of seven years.

222. It is an ascertained fact, that the higher the standard of health the less prone is the body to infection of any kind, and it is quite possible for a person, by careful attention to the laws of health, and by leading a temperate, regular life, almost to defy contagion, the vigorous constitution being able to throw off the germs of disease with only a slight disturbance of the balance. Nurses especially should lay this to heart, and as they are necessarily exposed to many dangers, seek to lessen those dangers by carefully following the teachings of Nature in ruling their life.

223. Before concluding this section it may be of use to give some of the leading and distinguishing characteristics of the most common infectious disorders, so that by their more prompt recognition we may secure for them speedy isolation.

Chicken-pox is a very mild disease. The period of incubation is fourteen days. In the most serious cases the eruption is preceded by fretfulness, *sometimes* vomiting, slight fever, drowsiness. The rash, a small vesicular eruption, comes out first on the trunk in isolated spots, and spreads over the whole body, never very thick, the head of the pock rubs off, and leaves a scab. The eruption does not appear all at once, but in successive crops at an interval of a day or two. The disease runs its course in a fort-

night; there are no sequelæ, though in some severe cases the eyes are left weak.

224. *Measles*.—The period of incubation is a fortnight. The symptoms are coryza, suffused and swollen eyes, heavy aspect like influenza, drowsiness, hoarseness, and cough, fever temperature, rising sometimes as high as 103° , usually from 100° to 102° . The eruption appears first on the neck and face in rose-coloured spots and blotches, and the skin feels raised on passing the hand over it; from these it spreads regularly over the trunk and limbs. The eruption lasts about three days. There is sometimes desquamation, not abundant, but in small bran-like scales. Sequelæ—weakness in the lungs, pneumonia, ophthalmia, bronchitis.

It is of great importance to keep the patient warm.

225. *Scarlet Fever*.—The period of incubation varies from three days to ten days. Premonitory symptoms are headache, vomiting, sore throat (this latter not always present), fever, temperature from 100° to 104° , sometimes delirium, thirst. The rash appears first on the chest and back, is scarlet in appearance, made up of small spots very close together, giving the one uniform red hue; in stroking the skin the blood rushes back rapidly; the heat of the skin imparts a sense of burning to the hand.

The rash fades within a week. It is always attended with desquamation, lasting over a month. Sequelæ, albuminuria, anasarca, nephritis, and incontinence of urine, and rheumatism; sometimes the poison seems to settle in some of the joints and leave permanent inflammation behind, but this is very seldom. Complete deafness is a result, when the glands of the neck have been much enlarged, or when there has been inflammation of the ear, and running from it, and a permanently weakened constitution; indeed, the after effects of scarlet fever are sometimes so serious that it is hard to know where it stops. There is always a tendency to dropsy within the first month.

226. *Small-pox*.—The period of incubation is a fortnight. Premonitory symptoms, general discomfort, a pain in the back across the loins, headache, shivering, pains in the limbs, the eruption of spots somewhat resembling measles appears first on the face; but each spot is raised with a central depression. A vesicle forms, its contents turn yellow, breaks, and scabs, and the scab being rubbed off causes the pock-mark. In severe cases the vesicles run into each other, when the disease becomes confluent, and after recovery the face is scarred and seamed. The critical days are the third and the ninth. The period of infection lasts in severe cases two months; but the

utmost care is required to see that all infected articles are burnt. Sequelæ, the sight is much weakened, sometimes entirely damaged or destroyed.

227. *Whooping-cough*.—Incubation is supposed to extend over a fortnight; the disease itself runs its course in six weeks. Premonitory symptoms those of an ordinary cold, attended with a persistent cough, which increases in intensity, and acquires a spasmodic character. In well-marked cases the spasms are accompanied by breathlessness and vomiting; the “whoop” is not always present.

228. We have now to deal with the other class of contagious diseases, which seem to depend for their propagation on some definite vehicle, or on some state of the atmosphere; and here I write in all humility, for the whole question of infection is so vague, so many theories are afloat, that to lay down any definite teaching on the subject is to profess unbounded wisdom and learning; but the ideas jotted down here are the results of many years' observations, whence they have been reasoned out.

229. Bad air; bad drainage, impure water, contaminated milk, have all the power of originating some form of poison in the human frame. Modern research has coupled the onset of typhoid or enteric fever with the imbibition of impure water or contaminated milk, and this points to the poison being

immediately conveyed into the system, and affecting the digestive or assimilating organs. Allied to this disease in its origin and effects, is cholera, but the symptoms differ, and the two diseases are not generally found running in parallel lines; the latter disease selecting as a rule hot countries, whence it is supposed to be conveyed to these more temperate climes in some mysterious manner. Inhalation of bad smells or sewer gases originates diphtheria, which is more especially a disease of the mucous membrane of the breathing passages. Allied to this disease is hospital throat, quinsy, and tonsillitis. These all seem to have their origin in malaria.

Typhus and gaol fever originate among crowded, ill-fed people; they are especially the attendants of poverty, and their leading symptoms, of extreme prostration and delirium, point to ill-conditioned blood and low vital powers.

The premonitory symptoms of these fevers are very much alike, and are at first so similar to those of other diseases as to puzzle the most experienced eye; but as they place themselves under one or the other category the similarity ceases.

230. *Typhoid fever* has an eruption of isolated rose-coloured spots, which disappear on pressure; they are first seen on the abdomen during the first week, fade in two or three days, and are suc-

ceeded by others; the disease runs its course in twenty-one or twenty-eight days. Its leading characteristics are diarrhœa (stools brick-dust colour), abdominal tenderness and swelling, and extreme prostration.

231. *Typhus fever* sets in with vomiting, shiverings, weariness, pains in head and back, often delirium or low mutterings; there is an eruption of small brownish spots close together on the trunk, an altered state of the fluids, urine being dark and offensive, stools the same. The fever resolves itself generally about the fourteenth day, passing off in twenty-one or twenty-eight days.

According to the severity of the symptoms this fever assumes the forms known as gaol fever, spotted fever, or putrid fever, all these being supposed to be varieties of the same.

232. *Diphtheria* sets in with shiverings, languor, headache, symptoms of a cold and sore throat; it rapidly develops its characteristic deposits of false membrane on the pharynx, larynx, fauces, nostrils, and mouth, the latter only in very severe cases. There is the most extreme depression, albumen in the urine, fœtor of the breath, suffocation, excessive difficulty in swallowing, the fluids in some cases returning through the nose, loss of speech, and, when the disease has been very severe, paralysis of the limbs

and organs of the voice. The recovery is very tedious.

233. It has been the experience of general hospitals that these before-mentioned diseases can be nursed in the general wards without their spreading, though there have been exceptions, such as nurses taking typhoid or diphtheria from their patients; but careful inquiry has generally elicited the fact that they have been careless either in disinfecting the excreta of the sick, or have been allowing their own state of health to run down below par. If the nurses inhale the breath of a diphtheric patient, or receive any of the sputa on to the mucous membrane, they run a great risk of taking it. But they should always take precautions. Be careful not to speak or open the mouth whilst standing over the patient, but breathe through the nose.

234. *Cholera* occurs usually in hot countries, or in this country during hot weather. It seems to depend for its propagation on that extreme heat which causes fermentation and exuberant vitality in animal decomposition. The poison is supposed to be conveyed into the system by drinking contaminated water; but, however it be conveyed, locality and temperature being favourable, it spreads with alarming rapidity. Its symptoms are shivering, extreme depression, cold extremities, cramp-like abdominal pains, excessive

thirst, dysentery, passing on to the characteristic "rice-water" evacuations, delirium, fever. In acute cases it runs its course with fearful speed, twenty-four hours sufficing to lay a healthy man low; and whenever it attacks its victim, the only hope of saving life is by taking prompt and vigorous measures. The symptoms exist in a milder form of the disease, which is known by the name of English Cholera.

The special form of contagion in this fearful disease is not yet known; its comparative rarity in this country does not afford many opportunities for the study of its phenomena.

SECTION I.

ON VENTILATION.

IT is hardly possible to over-estimate the value of thorough and systematic ventilation in the treatment of the sick, or in the preservation of a state of health. By its aid we are enabled to reduce to a minimum the bad effects of a noxious atmosphere—exchanging the foul air of illness for the purer air from the outside, drawing in fresh supplies of oxygen to replace that which has been consumed by the act of breathing. Air, like water, being necessary to sustain life, is to be found everywhere ; but man, in his short-sighted folly, contaminates the one and carefully excludes the other, and then pays the penalty in a diseased and fever-stricken body.

Water enters largely into the composition of the human body. It is perpetually being given off, and as perpetually being absorbed through the pores of the skin, in the food eaten, and in the air inspired ; and if these be deprived of moisture, there is a feeling of discomfort, as in a dry hard east wind, which comes to us across the cold steppes of Asia, parting with its moisture on the way. But, if possible, air is

of more importance in the maintenance of life, as the deprivation of it, even for a short time, causes death.

The effects of breathing *pure* air—that is, air with a sufficient supply of oxygen (the life-giving gas)—is to stimulate all the organs of the body into vigorous, healthy action, and to infuse a sensation of activity through the whole mechanism; whilst, on the other hand, the effects of a close, carbonic-acid-laden atmosphere are lassitude, lethargy, inertness, narcotism—proofs of poisonous matter passing into the lungs, and deadening the vital forces.

It is computed that a healthy man inspires from 15 to 20 times in the minute, that he consumes about 32 cubic inches of air in the minute, or 46,037 inches in the twenty-four hours. He expires this air from his lungs deprived of from three to four parts of oxygen, the place of oxygen being taken by carbonic acid gas, a gas harmful to animal life, and, besides, charged with effete and spurious products from the lungs and blood, germs of disease, and other deleterious matters, which discharge themselves into the surrounding atmosphere, and are re-inspired, unless carried off *at once* into space. Imagine a crowded building, occupied for some two or three hours, each individual taking his 32 inches of air per minute, and returning it again to the common stock, charged with

the products of combustion from his body, each person breathing in his neighbour's breath, no free current of air to clear off this foul atmosphere, and then cease to wonder at drowsiness, headaches, loss of appetite. But, indeed, we need not seek the crowded building. The family sitting-room, tightly shut up, the gas consuming the oxygen, the parents breathing in 64 inches of air per minute, the children taking in less, certainly, but needing it purer than the more seasoned adults—this will be quite familiar enough to us all to bring the truth home to each one, while, outside, the best friend, the *night air*, is seeking admission, and would bring in with him vigour, cheerfulness, elasticity, and contentment. Three inches at the top of the window is all he asks to work this reformation.

No man in his senses would stoop to drink at a stagnant wayside pool, and yet every day of his life he is drinking in air fully as impure, only its foulness is not so visible, its immediate effects not so unpleasant. If the atmosphere of the rooms we live in could only show its impurity as plainly as the water does its stagnation, we should be horror-struck at its gradually-darkening tints. The preacher, the prima donna, the favourite actor, even the family circle, would become shrouded in the thickening gloom of mephitic vapours. But no such warnings

are the precursors of its dangers ; only drowsiness, exhaustion, headache, generally attributed to the much-enduring stomach, show the slow poisoning that is going on.

A brier outline of the important part borne by fresh air in the animal functions may prove that the great need for a perpetual supply of fresh air is not over-rated. Dr. Alison, in his "Outlines of Physiology," says that "a regular supply of a nutritious fluid recently exposed to the air is a condition essential to the maintenance of life;" and "the circulating system is to be regarded as a channel of communication between the capillaries of the lungs, where the blood is prepared by the action of the air for the maintenance of life, and the capillaries of the rest of the body, where it is applied to the support of these different functions." The blood circulating through the body is divided into venous and arterial. That flowing through the veins (*venous*) has already passed through the body, and has given up its vitality to support the various organs through which it has circulated ; that through the arteries (*arterial*) is rich in life-giving power, and flows on, enriching and stimulating on its way. The difference between venous and arterial blood is that one has been exposed to the air from whence it has drawn its supply of oxygen, the other has parted with the oxygen.

The veins bring the blood to the lungs to be purified by contact with the air; the arteries take the aërated blood from the lungs, and distribute it to the body. The lungs are two sponge-like bodies, occupying a large space inside the chest, having a complicated network of blood-vessels, by which ample provision is made for exposing a large surface of blood to the action of the air, which is drawn into the lungs by the alternate expansion and contraction of the chest-walls. If pure air is inspired, the blood sets forth on its journey rich in life-giving oxygen; but if impure air is inspired, no rich feeding or alcoholic stimulant can take the place of the vital gas. The expired air is deprived of from three to four parts of oxygen, is charged with a noxious gas—carbonic acid—and also with morbid particles from the lungs and blood; and until it is freely diluted in the surrounding atmosphere, is deleterious to animal life. If confined within a space, the air becomes overladen with carbonic acid gas, and deprived of oxygen; therefore a correct balance between the *supply* of oxygen and the demand can only be maintained by admitting a supply of *fresh* air from the outside. Essential as is this free interchange between external and internal air in the homes of the healthy, it is tenfold more so in those tenanted by the sick, where the atmosphere given off by the patients is charged with the germs and vapours

of disease, and becomes absolutely *dangerous* to life when concentrated in a confined space.

Many and costly experiments have been tried to supply external air without immediate contact with the outside, but somehow they all seem to fail of their object. Nothing has been found to answer so well as an open window; and when people can be induced to overcome their unreasoning fear of an open window, they not only tolerate it, but like it in the end. For much of this fear we have to thank the energetic but wisdom-lacking apostles of fresh air, who will burst into a room, violently throw up the lower half of the window, letting in a sheet of cold air, scattering papers, furniture, peace, and comfort in all directions, and increasing tenfold the prejudices they seek to remove. A small piece of the upper sash let down three or four inches, and so kept night and day, will keep the atmosphere of the room clear, and will inconvenience no one. The impure atmosphere, being the lighter, ascends, and leaves the room by the open window, and its place is taken by fresh air, which will find its way in by the cracks and crevices of the doors and windows in sufficient quantity. Sometimes a tiny piece of the lower sash is raised about an inch, a mode of ventilation that is *utterly useless*, and is a fruitful cause of stiff-necks, muscular rheumatism, and the like, by letting in a wedge of

cold air, which can make no impression on the impure air inside. In bed-rooms and nurseries, where delicate people are afraid to admit the external air freely, it is a very good plan to have one or more of the upper panes perforated, which ensures clearing off the foul atmosphere without perceptibly chilling the room, and will preserve the health of the inmates.

Some people are always wondering why it is so hard to get up in the morning, why there is so much difficulty in rousing their servants, why they feel so unrefreshed in the morning? Let them make it a rule to keep their window open three inches at the top, and the cause of wonder will cease. They have been sleeping in a heavy, narcotising atmosphere, and have found its effects as hard to shake off as those of a dose of opium. A staircase window near the top of the house left open at the top all night would keep the house fresh, and remove that heavy, vitiated atmosphere that hangs about the house until the morning air has been let in. The purest air in large cities is the night air, and nine-tenths of the population carefully shut out their best friend.

It is not sitting in "draughts," popularly so called, that gives a cold, but it is exchanging the hot, ill-ventilated drawing-room for the cooler staircase or passage, or the keeping oneself shut up in one room

until some fancied call or tempting invitation draws the recluse out into a fresher atmosphere; then the body, weakened and half poisoned by the bad air, is unable to answer to the stimulus of pure air, and a cold is the result. It is strange how people, in other respects characterised by good sense, dread a breath of fresh air, and instead of braving it and accustoming themselves to it, they wrap themselves up, shut the windows, and resume the persistent inhalation of noxious gases, shutting *in* the foe, and *out* the friend. There is a very plain, easily-remembered maxim as a rule for ventilation—no air can be worse than that inside, and the sooner it is put outside the better. The air that is often found in the nurseries of the well-to-do would be a disgrace to any hospital. The abominable practice of herding nurses and children together in one small room, doors and windows fast shut, and then airing the night into the day nursery, should be brought under the immediate notice of the medical profession, and by them be determinately suppressed. The consequences are too evident—sore throats, colds, apthous ulcerated mouths, great delicacy of the chest, pallor, loss of appetite, restless nights, &c.—an endless list of evils. Then come the expensive remedies—the doctor's visit, the long chemist's bill, the change to the seaside, perhaps the bricklayer's inspection of the drains; all this might

have been saved by the exercise of a little common-sense, and the doctor's best prescription would have been knocking out the top pane of glass. When will parents learn to bring up their children on common-sense principles?—plenty of fresh air constantly, plenty of out-door exercise, good wholesome food, early hours—all infinitely better than the £20 worth of change of air, bought with much inconvenience, by sending the children into the country once a year. Change of air every day is decidedly more rational than change of air once a year. Mothers, for you I write ; do dare to be brave for your children ! I speak with an intimate knowledge of sickly, delicate children, and, from the experience of many years, I can safely say that I *never* saw the most delicate child derive anything but the most decided benefit from a judicious and constant supply of fresh air, the child at the same time being warmly clothed and the room properly heated. Constant and systematic ventilation would save many a doctor's bill, and keep the children in good health, even in the heart of London.

The free admission of fresh air is of greater importance still in the wards of a hospital, where the atmosphere must of necessity be surcharged with noxious vapours and harmful germs. There should *never* be an unpleasant heavy smell hanging about the

corridors or staircases of a hospital ; and yet very few even of our largest buildings are free from it. It can only be cleared off by a *perceptible* current of fresh air passing constantly through the house. The foul air is so apt to stick fast in corners and angles—a lurking enemy, ready to spring out ; and if sore throats, gathered fingers, or general low fever be present among the nurses and attendants, look to the ventilation, it is sure to be in fault. The most poisonous cases may, as a rule, be safely nursed, if the standard of health is maintained by the nurse and a constant supply of fresh air is circulating in all parts of the hospital.

In diseases of the chest, notably phthisis, a pure atmosphere would conduce greatly to a lower death-rate : the exhaled air, laden with morbid particles, is breathed and re-breathed into the lungs of the patients. It is like putting the germs out to compound interest. At least give the patient pure air ; even if it comes immediately from the outside it is better than that inside, and if he is warmly clothed, and the external air does not impinge directly on him, no harm will come of it. But few are courageous enough to do this, and the more severe the patient's disease, the more vitiated the air given him to breathe. It is to be hoped that some day science will give us an instrument capable of recording the

purity of the atmosphere inside a room or ward, registering "Foul! MORE FOUL!! MOST FOUL!"

It is impossible to entrust the ventilation of a building to nurses or servants. They will either throw up a window from the bottom, irrespective of the thermometer, or hermetically seal up doors and windows alike. Ventilation, to be thorough, should be systematic, and should be in the hands of one intelligent officer, who would give his or her mind to it. It is these *jerks* of ventilation that do the harm, and set up people's prejudices. An equable temperature kept up as nearly as can be in the rooms and outside of them is a great essential; it would do away with the danger of rapidly exchanging a warm atmosphere for a colder one, for therein lies the mischief, and would conduce to the good temper of the inmates. Keep a window open perpetually a little at the top in the living rooms, place perforated panes in the nurseries and sleeping-rooms, and then typhoid fever and other malarious diseases will keep outside your doors.

APPENDIX.

IT has been suggested that a few additions might be made to this work, embracing some of the improvements that have been made in the art of nursing, and also offering some further guide in the management of sickness in the family, or in tiding over an emergency "until the doctor comes."

It is not every household that can afford the luxury of a trained nurse, nor is it every patient that can claim an admittance to the hospital; there are a vast number between these two extremes that must receive their sick-nursing at the hands of their relatives, and to help them and lighten their load will be my present object. It would be a great boon if, in the large houses of the more wealthy, a room could be set apart for sickness, in as quiet a corner as possible, fitted up with all necessary conveniences, and maintained in a state of readiness.

When any member of the family is laid low, the room in which he is to be nursed should be prepared for the contest between life and death—all unneces-

sary furniture should be removed, carpets taken up and curtains taken down, only a few strips that could be easily shaken to be laid on the floor. If possible, a narrow bedstead should be substituted for the ordinary wide one, and the feather bed be replaced by two hair mattresses. If one of the woven wire mattresses could be procured, it would add immensely to the comfort of the patient, and do much towards preventing bed-sores. (It would be well if these wire mattresses were of more general use in our hospitals, as they are cleanly, most comfortable for the patient, and in the end are economical.) Such articles as are likely to be required either for feeding or other purposes should be placed handy in the room, so that there may be no delay, or disturbance in attending to the patient. A portable gas-stove will be found *most* useful, especially in the summer, when the heat of the fire may be insupportable.

One person, trustworthy and reliable, should be made responsible for the care of the sick person, and this individual should superintend the feeding at stated hours, the carrying out of the doctor's orders, and maintain the order and neatness of the sick-room. Much harm is done by the irregular nursing by any member of the family who may be disengaged, and also by the well-meaning but indiscriminate visits of friends. The nursing at home should be done with

the same regularity as in the hospital ; feeding and medicine times should be written on a slate, stating accurate quantities, and one person should have charge of the patient. (See paragraphs 175, 176, 181.)

If the illness to be nursed is of an infectious nature, a bath or some like vessel should be placed outside the door, containing disinfecting fluid, and in this water all the linen taken from the patient should be immediately placed. A vessel containing dry earth to be sprinkled over the evacuations is also a useful adjunct. (See paragraphs 211—220.) An abundant supply of water is necessary, as all feeding-cups and glasses need to be washed after each time of using.

The bedstead should never be placed in a corner, but in such a position that the patient is readily reached from either side. All valances or long counterpanes should be discarded, and no vessel, box, or basket of any description be permitted underneath the bed.

Waterproof sheeting is indispensable, and can be bought at any india-rubber shop, by the yard.

If it is necessary to keep ice in the room, an economical and cleanly way of doing so is to wrap it in flannel, and place it in a colander over a basin. The ice may be readily broken into small pieces by using a needle stuck into a cork.

All food and drinks should be kept outside the room, or outside the window.

It may be necessary to act in an emergency, and by the timely application of suitable remedies a valuable life may be saved. To insure this, presence of mind is before all things required, so that the mind may not be distracted from the real danger by details of no importance. For instance, an infant may be seized with croup: the most urgent symptom is its breathlessness; the noisy breathing, the restlessness, the cough, are all secondary. A warm bath, mustard poultices, or a sponge wrung out of *boiling* water, and held to the neck on the wind-pipe, are all valuable remedies for immediate use, and may save life during the delay of fetching the doctor. Whatever may be the emergency, the cool head and thoughtful mind will be the best able to meet the danger, and all bystanders subject to hysterics or fainting fits had better be sent on errands to check their selfish sentimentality. Decide what is best to be done, and then do it; and if you do not know what is the right thing to do, then do nothing; there is nothing so mischievous as meddling ignorance.

The most scrupulous care must be taken of the medicines and applications; all internal and external remedies should be kept apart, and the former either procured in graduated bottles or given in a measured

glass; such vague terms as "tea," "dessert," or "table-spoon" being capable of the most varied interpretations. Poisons should be placed always in one place, and that far out of reach of the patient.

Food should be given at stated hours, in definite quantities, and frequently (I am referring now to serious illness), and in as tempting a manner as possible. In the convalescent stage the appetite is often encouraged by the clean and appetising way in which a simple dish may be served up. When from various causes it is difficult to give food by the mouth, we must then have recourse to nutrient enemata; directions for this may be found in an earlier part of this book. A very nutritious combination is 2 oz. of Gillon's essence with an egg and a little brandy. (See paragraph 139.)

Remember in these and in all other particulars your work must be in *obedience* to the doctor, whether you are a trained nurse or a member of the family. The latter relationship is supposed sometimes to release from the obligation of obedience on the frequent plea, among many others, that the friends know the tastes and habits of the patient so much better. I have heard of some sad instances in which the doctor's best efforts have been thwarted by such injudicious meddling, and his patient has died because the friends knew best! Can you not imagine the heart-sick

feeling of helplessness that must come over the doctor when standing at such a bedside, and the hopelessness of knowing that only such of his directions will be carried out as march with the patient's whims?

It is useful in home-nursing to keep a daily record of the progress of the case; some such form as the appended may be found convenient. The nurse is then in a position to give an accurate report of her patient's condition, and the doctor is able to compare the daily progress, and is thus saved from the danger of mixing up one patient's case with another in his daily round.

If the patient is a young child, it is most essential, if possible, to secure a nurse who is accustomed to nursing sick children; so much depends upon the art of feeding and management, and a child will often take its food in illness better from a stranger, without that wearisome debate and questioning, harmful alike to patient and nurse. (See Section J.)

So much has been said in the former part of this book about the care of young children that there is little to add; but I should wish to draw the attention of mothers and nurses to the mischief wrought by the present style of feeding-bottle, that to which an india-rubber tube is appended—a kind of bottle that finds much favour because it does not require to be held

[illegible]

whilst the infant is taking its meals. I believe that this feeding-bottle is guilty of many deaths, because it is so difficult to keep clean, and the particles of stale sour milk or food, tainting that which is fresh, set up diarrhoea, indigestion, and disordered stomach. I have seen many infants in the out-patient rooms of the Children's Hospital half-starved, wasted, and diseased, whose illness began with the bottle, and ended when it was put aside in favour of the old-fashioned boat-shaped bottle without any tube. In all forms of feeding-bottles, the nipple requires the most scrupulous cleansing, that all particles of food may be removed. (See paragraphs 204—206.)

It is wonderful how many appliances may be extemporised in the sick-room, which are equally efficacious as the more expensive apparatus to be found in the wards of a hospital, and a little ingenuity on the part of the nurse, aided by the directions of the doctor, may be well expended in saving an added charge on the already taxed resources of the family. A very useful adjunct in the treatment of disease is the application of cold, and it has always been a problem how to maintain this continuously at one temperature. Get a piece of fine composition tubing, such as is used for pneumatic bells, and coil it either in a circle or oval, so as most readily to adapt itself to the part; keep these coils in place by tape or some

other means. To each end of the coil attach a long piece of india-rubber tubing ; have ready two pails, one containing water of the required temperature, and place this about three feet above the patient, with one end of the india-rubber pipe in the water ; place the other pail on the floor by the bed ; lay the metal coil on that part of the patient that requires the cold affusion. Suck out the air through the free end of the tubing, and you will find that the water will flow through the whole length of the tube until one pailful is emptied into the other. Hot water may be used in the place of cold when a warm affusion is required.

A handy way of keeping up cold irrigation is by means of a pickle bottle above the patient's head with a few strands of worsted therefrom, down which the water will descend by capillary attraction ; or lotion may be substituted to keep the lint constantly moistened without removal from the limb. Some contrivance will be needed to carry off the fluid, or the patient will soon be in a puddle.

One of the difficult applications is ice, it so quickly melts, and so readily finds its way out. The cold application above mentioned has nearly superseded ice, because by keeping the water iced a very low temperature can be maintained ; but if ice has to be used, it is most simply applied in a membrane, to be

bought of a butcher, in shape like a large sausage-skin, which readily adapts itself, and the ice may be kept in position by rings or tapes dividing the bag into sections. (See paragraph 128.)

To medicate a poultice, take a piece of lint or rag the size of the part affected, fold two or three times, and dip in boiling water, moisten freely with laudanum or other anodyne, place on the part with the hot poultice over it. (See paragraphs 82—94.)

A *potato poultice* is very useful in neuralgic pain of face, toothache, or ear-ache. Bake a large potato until it is mealy, turn its contents out of the skin, break up the lumps, place in a muslin bag, and apply with thick flannel outside. A *cotton-wool poultice* is not a bad substitute for spongeo-piline, and is made by stitching two layers of cotton-wool to soft linen or calico; this is readily heated with boiling water and wrung out. *Absorbent* cotton-wool is most valuable, both as a dressing and to take the place of a sponge.

In eczematous conditions of the skin after poultices, or from pressure and the heated state of the skin, a useful ointment may be made of one drachm of glycerole of lead to two ounces of oxide of zinc ointment; or better still, one drachm of glycerole of lead to two ounces of vaseline.

If leeches have to be applied, choose the spot,

if possible, over a bone, as it is much easier to make pressure to control the bleeding afterwards ; full directions for their application have been given previously in this book. (See paragraph 127.)

A sprain or strain is of so frequent an occurrence in the home circle, that a few hints as to its treatment will not be out of place. It is often more tedious to cure than a more serious fracture. The first essential is rest ; if there is much pain, soothing fomentations of camomile flowers and warm applications may be of use, but the first aim should be to reduce the swelling and inflammation ; this may be done either by leeches or cold lotions, and the cold affusion treated of above would be a valuable remedy in this case. The after-treatment is to strengthen the weakened structure by embrocations, cold douche, and friction.

In home-nursing, as in that of the hospital, the most thoughtful unselfish nature will be the valuable trustworthy handmaid, and the one on whom all will rely in an emergency. This spirit finds the most fitting field for its cultivation in the every-day duties and circumstances of life ; these, if followed out in obedience, will provide an education which far surpasses that of the New Code, and when the emergency arises, the well-trained nature will assume the *rôle* of nurse, to the advantage of the patient and his friends.

LIST OF SIMPLE REMEDIES.

ABSCESS or Boil—Fomentation with *hot* water, as hot as can be borne; this relieves the pain and tension. Poultice with linseed-meal poultice to bring it to a head. When the abscess is ripe it must be opened, and then the appropriate dressing will be ordered. After the boil has come to a head, and burst, the contents should be pressed out, until the hard mass or “core,” as it is called, has been expelled.

Bed-sores—Before the skin has broken, a lotion made of perchloride of mercury, two grains; spirits of wine, one ounce—dissolved—will be found most valuable as a preventative. Sponge over any point of pressure, and it will be found to harden the skin. A liberal use of dusting powder.

After the skin has broken, balsam of Peru *dressed in*, zinc ointment over it, or the Peruvian balsam, alternated with the green dressing (ung. elemi.), so long as the wound requires stimulating. A piece of strapping

an inch and a half square laid on the wound to complete the cure. Daily washing and powdering.

Bruises—Paint at once over the spot with dilute tincture of arnica. Caution: this must never be used where the skin is broken, as it may cause erysipelas. Should this not be at hand, a piece of butter laid on the place, or a little sweet oil, will materially allay the pain, and help to remove discolouration.

Burns and Scalds—At once exclude the air by making a paste with common kitchen whitening, which place on the burn, and renew as it dries; by laying over it wet rags, or copiously dusting the part with flour whilst the paste is being made. Carron oil is a very useful application for burns, made of olive or linseed oil and lime-water in equal parts.

The carbolised oil of the Pharmacopœia is useful, but whatever be the remedy used, the object is the same, to exclude the air, and keep on some impervious covering.

Chapped Hands or Scorched Face—Olive oil and glycerine in equal parts.

This is an unfailing remedy for all forms of excoriations, and has been found useful to the dry, harsh skin of eczema, or that which

attends kidney disease. It will also relieve the heat and stiffness of the face after exposure to a hot sun or a high wind.

Chilblains—All applications have been found eminently unsatisfactory, but a few placed on the list may be of use in some cases. Painting the toes and fingers with collodion, or collodion flexile; this must be persevered in until a false skin is formed. Painting with lin. iodi.

Rubbing in camphor, or hartshorn liniment. A warm douche at night is a great relief. Keep the legs as much as possible horizontal. The general health must be stimulated by tonic treatment.

Broken Chilblains—Peruvian balsam dressed in. An occasional application of the stick caustic. when the sore is indolent, tonic treatment, and keeping the feet up, will effect a cure.

Constipation—It is well always to try simple remedies first; an unwise use of purgative medicine is such a frequent cause of constipation that, as the evil increases, the potency of the remedy decreases. A glass of cold water early in the morning regularly before food; this, if persevered in, is often sufficient; fruit, such as figs or apples, eaten at the same time.

Sulphate of magnesia, $\frac{1}{2}$ to 1 oz. at the

same time ; Seidlitz powder, citrate of magnesia, $\frac{1}{2}$ to 1 oz. These should always be accompanied by a daily solicitation of the bowels at the same hour.

Castor-oil, 2 drs. to $\frac{1}{2}$ oz. ; if this be floated on *boiling* coffee, or be mixed with boiling toast-and-water, with a little pepper and salt, its nauseating taste will be much disguised. A warm bath is a useful remedy.

When the contents of the bowels are so hard that the mass cannot be expelled—a frequent occurrence in children—a little *warm* water placed for them to sit over will relieve the trouble. Great care must be taken that the water is not too hot so as to scald.

Convulsions, Infantile—A warm bath up to the neck ; an aperient powder, 1 grain of grey powder, or $\frac{1}{2}$ gr. of calomel ; friction down the spine.

Cough—An old-fashioned but very effectual remedy is syrup of turnip, made by slicing a turnip and covering it with moist sugar ; the resulting syrup may be taken when the cough is troublesome. Friar's balsam, fifteen drops on sugar. When the uvula is relaxed and the cause of the tickling, paint the throat with tannic acid, or tincture of myrrh.

Croup—This disease is so serious as to require skilled

treatment, but prompt measures taken before the doctor comes may be the means of saving the child's life.

Place the child in a warm bath, and give it an emetic, 1 dr. of ipecacuanha wine in water, or 10 gr. of pulv. ipecac. or pulv. antimon.; if neither be at hand, salt-and-water, or a little mustard-and-water, anything that will cause vomiting. After a free action of the skin has been induced, put the child to bed, with a mustard and linseed poultice round the throat, or, instead, a hot flannel, changed as often as it cools. Get the bowels to act freely by placing one grain of calomel on the tongue. Keep up this treatment diligently until the doctor comes. A sponge taken from boiling water and held to the throat will often allay the spasm.

Diarrhoea—This is often an effort of nature to expel some offending article of diet, and may be safely left to run its course; but if not terminating within thirty-six hours of its onset, it must be then treated as a disease. A little brandy is often the best remedy, taken in some effervescing drink.

Castor oil mixture, $\frac{1}{2}$ oz. with twenty or twenty-five drops of laudanum. Pulv. aromat

c. opio, 10 grs. in peppermint water. Diet during the attack—plain milk, and plenty of water to quench the thirst.

Drinks—Barley water. 4 pints of water, 2 oz. pearl barley, sugar, and flavoured with orange or lemon peel, boiled for half an hour.

Toast-and-water. Toast *thoroughly*, but do not singe, two slices of bread, cover them with a pint of *boiling* water, and set aside with a cover over it to cool.

Lemonade. Peel thin one large or two small lemons, put the peel with 2 oz. of sugar into a jug, squeeze the juice in, pour on a pint of boiling water, and set it aside covered to cool.

Milk and sherry mixture. Milk and lime-water, of each an equal quantity, $\frac{1}{2}$ to 1 oz. of sherry wine. A very useful and pleasant drink when there is a tendency to acidity of the stomach.

Acidulated rice drink. Ground rice, 1 oz.; water, 3 pints—boil to two, and sweeten with barley sugar, 1 oz.; lemon juice, 1 oz.

White decoction. Bread-crumbs, 1 oz.; hartshorn-shavings, $\frac{1}{2}$ oz.; 3 pints of water—boil to two, flavour and sweeten with lemon and sugar.

Tamarind drink. Mash up some tamarinds in boiling water, strain and set aside to cool.

Dusting powder—Oxide of zinc, one part ; starch powder, two parts.

Ear, removal of obstruction from—If a foreign body has slipped into the ear, do not attempt to poke it out ; such a proceeding is more likely to fix it firmer, and will certainly do injury to the delicate structure of the ear. Syringe the ear with warm water, keeping the nozzle of the syringe against the upper wall of the passage, keep the head lying with that ear downwards ; moisten with a little oil ; if the substance can be seen, make a loop of thin silver wire, and try gently to pass it behind the body and so draw it out ; if such simple means fail, give it up, and call in the assistance of a surgeon.

Syringing with warm water, and moistening the passage with oil, is the best plan for removing an excess of wax.

Ear-ache—Laudanum placed in the ear on cotton-wool, a roasted fig split in half and laid on, a hot bran poultice, or hot fomentations, steaming the head over a decoction of poppy-heads and camomile flowers (two poppy-heads, two ounces of flowers to a quart of water, boil).
A soothing fomentation may be made by

sprinkling fifteen drops of laudanum on spongio-piline wrung out of boiling water. A mustard plaister behind the ear.

Erysipelas (slight)—Keep out the air, if the part affected can be covered, either with the dusting-powder or with cotton-wool. A cooling soothing lotion may be made by adding half oz. of laudanum to half pint of Goulard water. If the skin is indolent in healing, the black wash of the Pharmacopœia, made by dissolving two grains of calomel in one oz. of lime-water, is very useful in cleansing and healing up erysipelatous sores. The general health requires attention.

Eye-lotion—Sulphate of zinc, one and a half drachms, dissolved in a pint of water; syringe with, or bathe. Alternate with alum, one and a half drachms; water, one pint—useful in weak or inflamed eyes. The secretion must be most carefully washed away as often as it collects. A blister or painting behind the ear until the skin be tender with lin. iodi. is a very useful remedy. Moisten the lids at night with a little olive oil. A compress, wet or dry, made of a thick circle of cotton wool to fill up the cavity of the orbit, and bound tightly on so as to exert pressure,

is sometimes a great relief to the heat and sense of fulness in an inflamed eye. Care should be taken in all cases of ophthalmia to avoid using the same towel or sponge; the secretion is often highly contagious. When the lids are granular and inflamed, rub weak citrine ointment (golden ointment) along the edges, but be careful not to let it go into the eyes, as it causes great smarting.

Mumps—Keep the patient in a warm room, foment the swollen gland with hot water, or apply bran poultices or spongio-piline.

Pediculi—In the hair—soft soap, staphisagria ointment, spirits of turpentine.

On the skin—Soft soap, spirits of turpentine.

Ring-worm—Paint the patch with lin. iodi. until the skin becomes irritated—generally three applications suffice; rub in afterwards an ointment made of one part of olive-oil to two parts of the white precipitate ointment of the Pharmacopœia. Very contagious.

Scabies (Itch)—Give a warm bath, rub the whole area of the eruption well over with sulphur ointment, and keep in bed; repeat this treatment for three consecutive days, keeping the patient in bed so that the vapour of the sulphur may saturate the skin. If the disease

be moderate, this ought to cure it ; but if the spots are still irritable, persevere in it. for a week ; make a *liberal* use of the ointment, and rub it *well* in. Keep separate linen for the patient.

Sore-throat—Gargle for relaxed throat: alum, half drachm to a pint of water. Put on a wet compress at bed-time.

For ulcerated or diphtheritic gargle—

Chlorate of potash, $1\frac{1}{2}$ drs.

Powdered borax, $1\frac{1}{2}$ drs.

Water, 1 pint.

Internally—

Chlorate of potash, 6 drs.

Tincture of cinchona, 1 oz.

Water, 12 oz.

Two tablespoonfuls every four hours.

This is one of the most valuable remedies for hospital or other sore throats. Its efficacy depends on the chlorate of potash, which is almost a specific for blood-poisoning.

Stomatitis—For an adult, the lotion above prescribed for sore throat, viz., chlorate of potash and borax ; this is a most useful wash for all kinds of aphthous or ulcerated mouths, and for that furred condition of mouth that accompanies fever. It be may combined with the mixture

in cases where the general health sympathises with the state of the mouth.

Thrush—Borax and honey to rub on the gums and cheeks of the infant. Pay particular attention to the secretions ; see that the bowels act at least once daily. Sponge out the mouth with borax and potash lotion.

Vomiting—In persistent cases give the patient small pieces of ice continuously ; effervescing draughts, brandy in soda-water, or champagne, are all useful in checking it.

Of blood—Give ice to suck, lay the patient flat, place cold cloths over the pit of the stomach, or cloths wrung out of vinegar and water.

Warts—Paint daily with strong nitric acid, or blistering fluid, or touch with stick caustic.

Worms—The thread-worm. Compound scammony powder, five grains for a child between five and eight years.

Round-worm. Powder as above, repeated until the creatures are expelled ; they are sometimes very troublesome to eradicate. Santonine powder, five to eight grains, is sometimes effective. In all cases it is advisable to administer a dose of castor-oil *early* in the morning, and when it has freely acted, then the special remedy.

Tape-worm—Powdered male-fern, $\frac{1}{2}$ dr. to 1 dr. ; for an adult, 2 to 3 drs. ; followed by a brisk purgative. This parasite is most difficult to eradicate ; the head remains in the bowel attached by the hooklets, and the worm comes away in joints or pieces ; the evacuations should be carefully examined for the head, for until that is expelled, the vitality and growth of the worm continues.

Wounds or cuts—First wash away the blood to see the size and nature of the injury ; if there is continued bleeding, put on pressure or tie a bandage above the injury ; try and bring the edges together with your finger and thumb quickly, and strap them with strips of plaster, place over the cut a pad of dry lint, and do not disturb the dressing for several days. If the cut gapes, stuff it with dry lint in strips, and bandage it firmly ; do not disturb it for at least twenty-four hours ; if it be over a prominence, dress it with carbolised oil once a day.

A few Hints on the Giving of Medicines.

All purgative medicines should be given on an empty stomach.

Oils are best given on milk or coffee. A piece

of bread is the most effectual cleanser of the mouth. A piece of orange-peel removes the taste.

Cod-liver oil should be given immediately after a meal.

Powders should be mixed in milk or given dry; it is a great mistake to give them in jam or sugar; the remembrance of the nauseous dose remains after childhood; give a little milk or water to wash away the taste. Make their bulk as small as possible.

Arsenic should be given after food.

Iron is taken after food.

Quinine should be taken on an empty stomach.

Most nauseous medicines may be taken easily by not allowing the *lips* to touch the contents of the glass.

Iron powders should be given between slices of bread-and-butter.

Iron fluid should be taken through a tube, to avoid discolouring the teeth.

LIST OF POISONS, CHIEF SYMPTOMS, ANTIDOTES AND REMEDIES.

Antimony—Vomiting, great depression, giddiness, cramps, purging.

Antidotes—Mucilaginous drinks, syrup and water, strong black tea, tannic acid in solution.

Arsenic—Pain in the stomach, vomiting, constipation, burning heat of throat, mouth, and fauces.

Antidotes—Magnesia and water, charcoal and water ; an emetic of thirty grains of sulphate of zinc in warm water, or some mustard and water, lime-water and milk, or oil and water ; vomiting to be produced after each draught.

Belladonna—Dilated pupils, dimness of sight, dryness of throat and mouth, pain in the head, giddiness (purging sometimes), stupor.

Antidotes—Astringents, as bark, logwood, or oak, decoction of bark ; an emetic ; lime-water or magnesia and water to drink ; vomiting to be continued.

Carbolic Acid—A burning heat of mouth, throat, and stomach, great pain over abdomen.

Antidotes—Castor-oil or olive-oil, to be given as a drink, milk-and-water mucilage.

Caustic Potash—Intense pain in alimentary canal, stricture of the œsophagus, vomiting, excoriation of mouth and fauces.

Antidotes—Vinegar and water, lemon-juice, orange or lime-juice in large quantities; an emetic of ipecacuanha, one drachm of the wine or twenty grains of the powder. Buttermilk is very useful to restore the tone of the stomach.

Chloral—Drowsiness, stupor, coma, failure of heart's action, cold extremities.

Antidotes—Strong doses of carbonate of ammonia and water or sal volatile, hot strong coffee; cold water dashed over head and chest; brandy and water, camphor administered.

Hydrocyanic Acid—Drowsiness, giddiness, stupor, extreme prostration, cold extremities, *rapid* failure of heart's action.

Antidotes—Sulphate of iron and sesquichloride of iron, carbonate of potash. A cupful of strong carbonate of ammonia and water, sal volatile and water frequently; cold water dashed over head and chest; galvanism.

Iodine—Symptoms similar to influenza, vomiting, great depression.

Antidotes—Solutions of starch, arrowroot, tapioca, flour and water, or boiled potatoes.

Cause vomiting to expel the poison.

Lead—Redness of the gums, sores round the teeth, paralysis, great pain in abdomen; “painter’s colic.”

Antidotes—Sulphur water.

Mercury—Sponginess of the gums, undue flow of saliva, teeth loosened from gums, green stools, corrosion of the stomach, mouth and anus become excoriated, cramps.

Antidotes—Albumen and gluten, milk, or milk and water, to dilute the poison.

Nitrate of Silver—Burning heat of mouth and throat, pain in stomach, vomiting, purging, cramps.

Antidotes—Common salt and water, castor-oil.

Opium—Contracted pupils, uncontrollable drowsiness, coma.

Antidotes—Camphor, ammonia, hot coffee, brandy and water; the patient to be kept constantly walking for ten or twelve hours.

Strychnine—Involuntary twitching of the limbs, arching of the back, spasm of the throat, cramps.

Antidotes—Give emetics—mustard and water or sulphate of zinc; large draughts of warm milk and effective doses of castor-oil.

ABBREVIATIONS COMMONLY USED IN PRESCRIPTIONS.

- Ad. lib. (ad libitum)—At pleasure.
Alt. noct. (alternâ nocte)—Every other night.
— horis (alternis horis)—Every other hour.
— dieb. (alternis diebus)—Every other day.
A. c. (ante cibum)—Before food.
Baln. tep. (balneum tepidum)—Tepid bath.
B. d. (bis in die)—Twice a day.
C. m. (cras mane)—Every morning.
C. n. (cras nocte)—Every night.
Dext. lat. (dextrum latus)—Right side.
H. n. (hâc nocte)—To-night.
Hor. decub. (horâ decubitus)—At going to bed.
— som. (horâ somni)—At going to sleep.
M. pr. (mane primo)—First thing in the morning.
N. mque. (nocte maneque)—Night and morning.
O. m. (omni mane)—Every morning.
O. n. (omni nocte)—Every night.
O. alt. hor. (omnibus alternis horis)—Every other hour.
O. bid. (omni biduo)—Every two days.
O. bih. (omni bihorâ)—Every two hours.

P. d. a. (parti dolenti applicandum)—To be applied to the painful part.

P. a. (parti affectæ)—The part affected.

P. d. (parti dolenti)—The painful part.

P. c. (post cibum)—After food.

P. r. n. (pro re natâ)—As required.

S. o. s. (si opus sit)—If necessary.

Stat. (statim)—Immediately.

T. d. s. (ter die sumendum)—To be taken three times daily.

2^{dis} horis—Every two hours.

3^{tis} horis—Every three hours.

4^{tis} horis—Every four hours.

6^{tis} horis—Every six hours.

8^{vis} horis—Every eight hours.

WEIGHTS AND MEASURES.

gr. j—One grain.

ʒ j—One scruple = 20 grains.

ʒ j—One drachm = 60 grains.

ʒ ss—Half-ounce = 4 drachms.

ʒ j—One ounce = 8 drachms.

lb. j—One pound = 16 ounces.

fl. m j—One minim.

fl. ʒ j—One fluid drachm = 60 minims.

fl. ʒ ss—Fluid half-ounce = 4 fl. drachms.

fl. ʒ j—One fluid ounce = 8 fl. drachms.

fl. O j—One pint = 20 fl. ounces.

fl. C j—One gallon = 8 pints.

N.B.—A drachm is considered the equivalent of a teaspoonful, two drs. the equivalent of a dessert-spoonful, half an ounce the equivalent of a table-spoonful.

GLOSSARY OF MEDICAL TERMS.

Abdomen—The largest cavity in the body—the belly—it contains the liver, spleen, stomach, kidneys, pancreas, large and small intestines, bladder, rectum, and internal organs of generation.

Abdominal—Pertaining to the belly.

Abductor Muscles—The muscles which draw the part *away* from the axis of the body or limb.

Abnormal—Irregular.

Abrasion—A partial removal of the outer skin.

Abscess—A collection of pus in a cavity, caused by inflammation; preceded generally by much pain, heat, and swelling in the affected part.

Acceleration—An increased activity in the functions, or in the morbid processes.

Accession—The commencement of a disease, a term especially applied to fevers.

Acetabulum—The cup-like cavity that receives the head of the thigh-bone.

Achilles Tendon—The powerful tendon at the back of the heel, the principal agent in the movement of the foot.

Acne—An eruption of pimples, usually on the face, neck, and shoulders.

Acupuncture—An operation performed by introducing a needle into any part of the body for the relief of pain.

Acute—A term applied to a disease attended with violent symptoms.

Adductor Muscles—The muscles which draw the part *towards* the axis of the body or limb.

Adenoid Disease—Disease of the glands.

Adeps—Fat.

Adhesion—In surgery, the union of structures that have been divided. In pathology, the morbid union of contiguous parts by inflammatory action.

Adipose Tissue—The cellular tissue in which fat is deposited.

Affusion—The pouring on of any fluid.

Ague—A disease consisting of shivering, followed by febrile paroxysms, recurring at regular or irregular periods.

Ala Nasi—The cartilage of the nose which forms the nostrils.

Albumen—The substance composing white of egg;

it enters largely into the composition of animal fluids and solids. It is coagulated by heat, and precipitated by nitric acid.

Aliment—Any substance which is capable of affording nourishment to the body.

Alimentary Canal—The name given to the whole passage through which the food passes in the body.

Alopecia—The falling off of the hair.

Alterative—That which re-establishes the healthy functions of the body without violent action.

Alternans—Alternate.

Alveolus—The socket of a tooth.

Alvine—Pertaining to the bowels.

Amaurosis—A diminution or total loss of sight, from loss of nervous power in the eye.

Amenorrhœa—Absence of the flow of the menses.

Amnesia—Forgetfulness.

Amylum—Starch.

Anæmia—Deficiency of blood, either in quantity or quality.

Anæsthesia—Diminished or lost sense of feeling.

Anæsthetics—Medicines given to produce insensibility.

Anal—Belonging to the anus.

Anasarca—A swelling of the cellular tissue caused by the collection of serous fluids immediately beneath the skin.

Anastomosis—The junction of the arteries, veins, and lymphatics.

Anatomy—The science which treats of organised animal bodies, notably the structure of man.

Anchylosis—The bony union of joints, after injury or disease, rendering them inflexible.

Aneurism—A pulsating tumour caused by the rupture of the middle and internal coats of an artery, and the dilatation of the external coat.

Angina—A term expressive of the sense of suffocation, applied especially to different forms of disease of the throat.

Angina Pectoris—A painful constriction of the chest, dependent on serious heart disease.

Anima—The soul, the vital principle.

Annular Ligament—The ligament that encircles the wrist.

Anodyne—Medicines that allay pain.

Antacid—Medicines that destroy acidity.

Antagonist—A term used of muscles that oppose each other in their action ; thus, the flexors and extensors of a limb are antagonists. The equilibrium of the body is maintained by this antagonism.

Ante—Before.

Anterior—A word used to designate a region or part before or in front of another.

Anthelmintic—Medicines used to expel or destroy worms.

Antidote—Medicines to prevent the effects of poison.

Antiphlogistic—The means used to reduce inflammations.

Antiseptic—The term used of any substance that has the property of preventing putrefaction

Antispasmodic—Medicines given to allay spasms.

Antrum—A bony cavity in the upper jaw between the nose, the eye, and the roof of the mouth.

Anus—The outlet of the great intestine or rectum.

Aorta—The main trunk of the arterial system ; it rises from the left ventricle of the heart, and is the origin of every artery except the pulmonary.

Aorta, Arch of—The bend of the great artery between the ascending and descending portions, lying in the chest.

Aperients—Medicines which act gently on the bowels.

Apex—The upper, sharp extremity of a part.

Aphasia—A condition in which the patient, while retaining a knowledge of the words, loses the power of uttering the appropriate word, or of framing a complete sentence.

Aphonia—Loss of speech.

Aphtha—The thrush ; small white ulcers on the interior of the mouth and on the tongue ;

especially a disease of infants, or of persons exhausted by long illness.

Aphthous—Of the nature of Aphtha.

Apnoea—Absence of respiration.

Apoplexy—A sudden suspension of the muscular and voluntary powers, the action of the heart and respiration continuing, due to disease of the brain, and usually to the pouring out of blood on its surface or into its substance.

Appendix—A name given to an appendage of an organ by anatomists.

Aqua—Water.

Arachnoid Membrane—A delicate membrane, investing the brain and spinal cord, lying between their outer and inner covering.

Argenti Nitras—Nitrate of silver ; caustic.

Arteriotomy—The opening of an artery for the purpose of abstracting blood from the system.

Artery—The vessels that convey blood from the heart to all parts of the body. They are pulsating membranous canals, composed of three coats or tunics. All the arteries, with the exception of the pulmonary, convey *red* blood to the body; the pulmonary carries back purple blood from the body to the lungs, like the veins.

Arthritis—Inflammation of a joint.

Articular—Belonging to a joint.

Articulation—A joint.

Ascites—Dropsy of the abdomen.

Asphyxia—Interrupted respiration, in which vitality may be restored.

Assimilation—The conversion of nutritious matters into the different tissues and structures of the body.

Asthenia—Debility ; loss of strength.

Asthma—A difficulty of breathing, occurring in paroxysms, from disordered action of the nerves of respiration, and often dependent on non-inflammatory disease of the lungs or heart.

Astragalus—The ankle-bone.

Astringent—A medicine that has the power of contracting the tissues of the body, or of restraining secretions or discharges.

Atlas—The first bone of the spinal column, on which the head rests.

Atony—Deficiency of strength, especially applied to the muscles.

Atrophy—A wasting of the whole body, or of any particular part of it.

Attenuation—Loss of bulk.

Auditory—Belonging to the sense of hearing.

Auricula—The external ear ; two cavities in the heart which are somewhat like the ear.

Auris—The ear.

Auscultation—The art of listening to the vital sounds of the body; generally employed to detect disease of the heart or lungs.

Axilla—The armpit.

Axis—A line, imaginary or real, passing through the centre of a body.

Balneum—A bath.

Balneum Frigidum—A cold bath.

Balneum Tepidum—A tepid bath.

Balneum Vaporis—A vapour bath.

Bandage—A surgical appliance, made of cotton, linen, flannel, or woven material, used in the form of a roller, of various widths and lengths, to give support to a part, to exert pressure, or to retain a dressing in its place.

Biceps—A name usually confined to the large muscle of the arm, situated on the inner side between the shoulder and bend of the elbow; it is also applied to muscles that have two points of origin.

Bifurcation—The division of a trunk into two branches, as the bifurcation of the trachea.

Bilis—The bile; a bitter fluid secreted by the liver; an agent in the process of assimilation.

Bistoury—Any small knife used for surgical purposes; it may be either curved or probe-pointed.

- Blepharoptosis**—A falling down of the upper eyelid.
- Blister**—An elevation of the cuticle from the deposit of serum beneath its surface. A blister may be caused by a burn, or be raised artificially, or be caused by disease.
- Blood-letting**—An artificial discharge of blood for the cure of disease.
- Boil**—A large pimple with a broad base, attended with much pain and inflammation, and surrounding hardness, often coming slowly to a head, and discharging a drop of pus. When a boil dies away without forming a head, it is called a blind boil.
- Boracic Acid**—One of the antiseptic agents.
- Bougie**—A long, slender, flexible instrument, for introducing into strictures of the œsophagus, rectum, &c.
- Brachial**—Belonging to the arm.
- Bronchia**—The tubes into which the trachea divides on entering the lungs.
- Bronchitis**—Inflammation of the mucous membrane of the bronchia. Bronchitis may be acute or chronic.
- Bronchocele**—A tumour on the front of the neck, being an enlargement of the thyroid gland.
- Bronchotomy**—An operation in which an opening is made into the larynx or trachea for the relief

of suffocation, or the removal of a foreign body.

Bucca—The cheek.

Bulla—A bleb, a vesicle.

Bursa Mucosa—A small sac lined with membrane, which secretes an oily fluid to lubricate the surfaces over which the tendons play.

Cachexia—A debilitated habit of body.

Cæcum—The first portion of the large intestine.

Cæsarian Operation.—The operation of making an incision into the uterus to extract the foetus, either after the death of the mother, or during life if some impediment exists to a natural delivery.

Calcaneum—The bone of the heel.

Calx—Lime.

Calcis Liquor—Solution of lime ; lime-water.

Calcis Os—The largest bone of the tarsus ; the heel.

Calculus—A stone—morbid concretions of a hard nature that form in various parts of the body.

Callosity—An unnatural hardness.

Cancer—A malignant growth that vitiates the whole system, and destroys life.

Cancrum—A spreading ulcer, especially affecting the mouth.

Canine Teeth—The four eye-teeth ; they resemble those of a dog.

Canthus—Angle of the orbit.

Canula—A metallic or elastic tube for surgical purposes.

Capillary Vessels—Small blood-vessels resembling a hair, which intervene between the arteries and veins.

Capsular Ligaments—Ligaments that surround the joints, attached to the articular surfaces.

Caput—The head.

Carbuncle—An unhealthy, circumscribed swelling, attended with much inflammation and pain; resembling a boil, but larger; ending by the discharge of dead cellular tissue, the so-called core.

Carcinomatous—Resembling a cancer.

Cardia—The region of the heart.

Cardialgia—The heart-burn.

Caries—Ulceration of bone.

Carious—Term applied to bones affected with ulceration.

Carnification—Becoming of a fleshy consistence.

Carotids—The large arteries of the neck that convey blood to the head.

Carpus—The wrist.

Cartilage—A smooth elastic solid, softer than bone, which covers the movable articulations of the bones, or unites one bone with another.

Caseous—Resembling cheese.

Catalepsy—A trance—a suspension of mind, will, and sense, pulsation and respiration being palpable.

Catamenia—The monthly discharge in women.

Cataplasma—A poultice. Poultices may be made of linseed-meal, bread, yeast, mustard, charcoal, seaweed, and carrots.

Cataract—A disease of the eye, producing an opacity of the lens behind the cornea, and thus preventing the access of light.

Catarrh—An increased secretion of mucus ; now used of a cold in the head.

Catheter—A long hollow tube, used for drawing off the contents of the bladder.

Caustic—A substance which destroys the tissues like a burn.

Cautery, actual—The application of red-hot iron.

Cavity—The term used of the hollow parts of the body.

Cellular Tissue—The loose tissue beneath the true skin, and in some internal parts ; so called because it is made up of minute cells.

Cephalic—Referring to the head.

Cera—Wax.

Cervical—Belonging to the neck, or cervix.

Cervix—Neck.

Chlorine Gas—An antiseptic agent ; most useful in disinfecting. It is made by pouring a few

drops of sulphuric acid on one part of black oxide of manganese and four parts of common salt.

Chlorosis—The green sickness; a form of disordered health of young women, dependent on absence of the monthly period.

Cholera—A very dangerous disease, manifested by an increased discharge from the intestines, attended with vomiting, griping, cramps, and great depression. One of the zymotic diseases.

Chorda—In anatomy, the tendon of a muscle.

Chorea—St. Vitus' dance.

Chronic—Of long duration.

Chyle—A milk-like fluid, one of the products of digestion.

Chyme—The ingested mass of food, after it has passed from the stomach.

Cibus—Food.

Cicatrix—The scar left after the healing of a wound.

Ciliary—Belonging to the eye-lid, or cilium.

Circulation—The movement of the blood through the veins and arteries. The impure blood is brought by the veins to the heart; by the heart it is driven through the lungs, where it is converted into bright arterial blood; again returned to the heart, to be driven through the arteries to the extremities.

Clavicle—The collar-bone.

Clinical—Relating to patients in bed.

Clonic—A term applied to spasms in which the muscles alternately contract and relax in sudden, quick succession.

Coagulation, clotting—The change of a liquid into a solid.

Coccygis Os, or Coccyx—The small bony appendage at the end of the spine.

Cochlea—A cavity of the internal ear, like a snail's shell.

Collapse—Entire prostration of the vital powers.

Collyrium—A lotion for the eye.

Colon—The greater portion of the large intestine.

Coma—An unnatural state of insensibility, resembling sound sleep.

Cominuted—A fracture of bone into numerous pieces.

Commissure—The place where two parts unite.

Compress—A soft pad, folded, and applied to make pressure on any part.

Concha—The outer ear.

Conception—The first act of gestation.

Concretion—The growing together of parts; the solidification of certain fluids.

Concussion—A shaking together.

Condyle—The flattened head of a bone.

Congenital—Existing at birth.

Congestion—An undue accumulation of fluids in their proper vessels.

Constipation—An indolent state of the bowels.

Constrictor—A muscle which contracts an opening.

Contagion—The communication of disease by personal contact.

Contusion—A bruise.

Convalescence—The time of recovery after an illness.

Convulsions—A violent involuntary agitation of the limbs and muscles.

Cor—The heart.

Cornea—The horny transparent coat of the front of the eye.

Corpus—A body.

Corrugator—A muscle which wrinkles up the part.

Coryza—A flow from the nose, eyes, and fauces.

Costa—A rib.

Costal—Belonging to the ribs.

Coxa—The hip.

Cranium—The skull.

Crepitation—A crackling sound, accompanying the entrance of air into the lungs, in some diseases.
The grating of the ends of broken bones.

Cricoid—The round, ring-like cartilage of the larynx.

Crisis—A sudden change in acute diseases.

Croup—A noisy cough, accompanied with inflammation of the wind-pipe and suffocative breathing.

Crus—The thigh.

Cubitus—The fore-arm.

Cuboid—A bone of the foot.

Cupping—An operation by which blood is drawn to the surface by exhausting the air in a glass cup.

Cutaneous—Belonging to the skin.

Cutis—Skin.

Cyanosis—The blue disease, caused by a malformation of the heart.

Cystic—Belonging to the urinary or gall-bladder.

Cystis—A cyst or bladder, containing fluid.

Cystitis—Inflammation of the bladder.

Decoction—A preparation made by boiling in a watery fluid.

Decomposition—The separation of the component parts of bodies from each other.

Degeneration—A morbid change in the structure of parts.

Deglutition—The act of swallowing.

Delirium—A confusion of ideas, caused by disturbed functions of the brain.

Deltoides—The large muscle that lies over the shoulder-joint, so named from its triangular shape, resembling the Greek Δ .

Dementia—Weakening of the mind.

Demulcent—A medicine which softens and mollifies.

Dens—Tooth.

Dentition—The act of cutting the teeth.

Deobstruent—A medicine having the power to remove an obstruction.

Depilatory—An application which removes hairs from the body.

Dermatology—The knowledge of the skin and its diseases.

Desquamation—The scaling off of the skin; part of the sequelæ of fevers.

Detergent—An application which cleanses foul surfaces.

Diabetes—A disease of the kidneys, attended with an immoderate flow of urine.

Diabetes Insididus—The form of the disease in which the urine is copious, limpid, and neutral.

Diabetes Mellitus—In which the urine contains a large amount of sugar.

Diagnosis—The art of recognising a disease by its symptoms.

Diaphoretic—A medicine to cause perspiration.

Diaphragm—A muscle that divides the thorax from the abdomen, of considerable use in the act of respiration.

Diarrhœa—An excessive action of the bowels.

Diastole—The dilatation of the heart and arteries, caused by the flow of blood into them.

Diathesis—A natural tendency to hereditary diseases.

Dicrotic—A peculiarity of the pulse, conveying the idea of a double pulsation.

Dietetic—Relating to diet.

Diffuse—Spread widely, with no distinct limits.

Digestion—The dissolving of food in the alimentary canal, and the conversion of it into nutriment for the body.

Digitus—A finger.

Dilatation—The widening of any part by natural or diseased action.

Diluent—Liquids which increase the proportion of fluid in the blood.

Diphtheria—One of the zymotic diseases, affecting especially the mucous membrane of the mouth and throat, attended with extreme depression, and often with deposit of a false membrane on fauces and mouth.

Diploë—The cancellated substance between the two tables of the skull.

Diplopia—Double vision.

Dipsomania—A mania for intoxicating drinks.

Director—A grooved instrument for guiding the knife in surgical operations.

Disease—Any deviation from the healthy standard.

Dislocation—The displacement of the articular surfaces of the joints.

Dissection—The cutting to pieces of any organic substance for the purpose of study.

Distortion—Out of the right position.

Diuresis—A copious flow of the urine.

Diuretic—That which induces a copious flow of urine.

Diverticulum—Any organ capable of acting as a temporary reservoir during an excess of blood in neighbouring parts.

Dolor—Pain.

Dorsal—Belonging to the back.

Dorsum—Back.

Drastic—A brisk purge.

Drivelling—An involuntary flow of saliva.

Dropsy—Accumulation of fluid in the cavities of the body.

Ductus—A canal or duct. There are several in the body.

Duodenum—The first portion of the small intestine.

Dura Mater—The tough membrane that invests the brain externally.

Dysentery—An affection of the mucous membrane of the intestines, accompanied by bloody evacuations, pain, fever, loss of appetite.

Dysmenorrhœa—Difficult or painful menstruation.

Dysopia—Bad sight.

Dysorexia—A depraved appetite.

Dyspepsia—Indigestion.

Dysphagia—A difficulty in swallowing.

Dyspnoea—Difficult respiration.

Dysuria—Difficulty in discharging the urine.

Ecchymosis—A black and blue swelling, caused either by a bruise or by spontaneous extravasation of blood.

Ecthyma—A pustular disease of the skin. It is attended with general debility.

Eczema—A troublesome eruption on the skin, of small vesicles that usually run one into the other. Not contagious. There are various forms of this disease.

Effluvium—A disagreeable smell.

Electricity—The property peculiar to some substances of attracting others. The peculiar power thus produced is made use of under special conditions in medicine.

Element—That which can be no further divided by chemical analysis.

Elephantiasis—A blood disease, in which the skin becomes livid, thick, tuberculated, and insensible to touch.

Elevator—A muscle that raises the part to which it is attached. A surgical instrument for raising depressed bones.

Embolism—Obstruction of the arteries or veins by a fibrinous clot of blood.

- Embrocation—A fluid to be rubbed into a part.
- Embryo—The germ of a plant or animal.
- Emetic—A medicine given to cause vomiting.
- Emollient—That which has the power of softening animal fibre.
- Emphysema—The wind dropsy; infiltration of air beneath the cellular tissue.
- Emplastrum—A plaister.
- Belladonna —Belladonna plaister.
- Lyttæ—A blister.
- Picis—Pitch plaister.
- Emprostotonos—A violent contraction of the body, bending it forward.
- Empyema—A collection of pus within the chest, succeeding an attack of pleurisy.
- Emulsion—A soft, viscid, oily substance; a form of medicine.
- Enarthrosis—The ball-and-socket joint.
- Encephalocele—A protrusion of the brain.
- Encephalos—The head.
- Encysted Tumours—Which consist of fluid enclosed in a sac.
- Endemics—Diseases prevalent in particular localities.
- Endocarditis—Inflammation of the lining membrane of the heart.
- Enema—A liquid form of food or medicine thrown up into the bowel.

Ensiform Cartilage—The cartilage attached to the lower end of the sternum.

Enteric—Having reference to the intestines.

Enteritis—Inflammation of any part of the intestinal canal.

Entozoa—General name for parasitic animals that infest the body.

Enuresis—An involuntary flow of urine.

Epidemic—A disease which attacks a number of persons at the same time and place.

Epidermis—The scarf-skin, or cuticle.

Epigastrium—The region lying immediately over the stomach.

Epiglottis—The cartilage at the root of the tongue which closes the aperture of the larynx during the act of swallowing.

Epilepsy—A disease consisting of convulsions, coma, foaming at the mouth, with sudden falling to the ground.

Epiphysis—A portion of bone growing upon another, but separated by cartilage.

Epistaxis—Bleeding at the nose.

Episthotonos—Synonymous with Emprosthotonos.

Epithelium—The cuticle covering mucous membrane.

Erratic—Wandering ; irregular.

Eruption—The appearance of spots on the skin.

Erysipelas—An inflammatory disease of the skin, at-

tended with great pain, tenderness, swelling, and vesication, also fever and other constitutional disturbance; usually indicative of great debility.

Erythema—A disease similar to the above, but not attended with such severe constitutional symptoms.

Escharotic—A substance which has the power of destroying the textures of the body.

Ethmoid Bone—One of the bones of the skull.

Evolution—Development.

Exacerbation—An increase of intensity.

Exanthema—A rash on the skin, attended with fever.

Excoriation—An abrasion of the skin.

Excrement—The useless matter ejected from the body by the bowel.

Excretory Ducts—The ducts that convey the secreted fluids from the glands.

Exfoliation—The separation of dead from living bone.

Exophthalmia—A protrusion of the eye-ball.

Exostosis—An enlargement of, or tumour on, the bone.

Expectorant—That which increases the discharge from the lungs.

Expectoration—Throwing out mucus from the lungs.

Extensors—The muscles which extend any part.

Extirpation—The complete removal of any part.

Extraction—The taking of foreign substances out of the body.

Extravasation—The effusion of fluids from the vessels, or out of their proper cavities.

Exudation—In medicine, the pouring out of secretion from an inflamed surface.

Facial—Belonging to the face.

Farinaceous—The name of all foods containing meal or flour.

Fascia—The tendinous expansion of a muscle.

Fauces—The opening of the pharynx.

Favus—A variety of skin disease, somewhat resembling a honey-comb.

Febricula—A slight fever.

Febrifuge—Medicines that allay fever.

Febris—Fever.

Femoral—Belonging to the thigh.

Femur—The thigh.

Fibre—A simple thread.

Fibrin—An organic compound, peculiar to vegetables and animals ; it forms the chief part of muscular flesh, and is found in the blood.

Fibula—The smaller of the long bones of the leg.

Fistula—A long, irregular ulcer, sometimes opening into a cavity ; not inclined to heal.

Flatulency—A morbid collection of gas in the

stomach and bowels, popularly called the wind.

Flesh—The muscular substance of an animal.

Flexors—Muscles which bend the joints.

Floccitation—Picking the bed-clothes; a very grave symptom in acute diseases.

Fluctuation—The wave-like feeling communicated by touching a swelling containing fluid.

Fœtus—The young of animals before birth.

Folliculus—A little gland.

Fomentation—Bathing with warm water.

Foramen—A little opening.

Forceps—An instrument to take firm hold on bodies.

Formula—Name for prescription.

Fontanelle—The spaces between the bones of the skull which do not close until the third year after birth.

Fracture—The breaking of a bone in one or more places.

Frænum—A ligament which holds down or restrains the motion of a part.

Friction—Rubbing; in auscultation, the rubbing sound in the chest.

Frontal—Belonging to the forehead.

Fumigation—The medical application of fumes or vapours.

Function—The vital action appropriate to a part.

Funis—A cord ; the navel string.

Furunculus—A boil.

Galactorrhœa—An excess of milk.

Gall-bladder—A membranous receptacle under the liver, to retain the bile that regurgitates from the hepatic duct.

Galvanism—A peculiar manifestation of electricity employed for medical purposes, so named after Galvani, who discovered the application of electricity to animal muscle.

Ganglion—In anatomy, a natural enlargement in the course of a nerve.

Gargarisma—A gargle.

Gaster—The stomach.

Gastritis—Inflammation of the stomach.

Gastrocele—A hernia of the stomach.

Gastrocnemius—A muscle in the calf of the leg.

Gastro-enteritis—Inflammation of the stomach and intestines.

Gestation—Pregnancy ; the act of carrying the young in the womb.

Ginglymus—A hinge-like joint, as that of the knee and elbow.

Gland—In anatomy, an organ composed of blood-vessels, nerve tissues, and absorbents, which has the property of secreting its appropriate fluid. They are all over the body.

Glaucoma—Dimness of sight, caused probably by opacity of the vitreous humour.

Globus Hystericus—The sensation of a ball in the throat, often accompanying hysteria.

Glossa—The tongue.

Glottis—The superior opening of the larynx at the bottom of the tongue.

Gluteal—Belonging to the buttocks.

Gonorrhœa—A purulent discharge from the urethra.

Gout—A very painful disease in the joints, especially in those of the hands and feet. It is attended with many symptoms in the internal organs, to which sometimes the affection is confined.

Grafting—The operation of promoting the healing of indolent ulcers by transplanting on to their surface minute pieces of skin.

Granulation—In surgery, the little grain-like, fleshy bodies which fill up the cavities of wounds, and promote the healing of the part.

Gravity, Specific—The density of the matter of which any body is composed, tested by comparing it with a known standard. The standard is always water. In testing urine it is always necessary to take the specific gravity, which is done with an instrument called the urinometer.

Gryphosis—A disease of the nails, in which they grow inward and irritate the soft parts.

Gustatory—Belonging to the sense of taste.

Gutta—A drop ; a medicinal measure.

Guttural—Belonging to the throat.

Gymnastics—The education of the muscles and the developing of the bodily strength by appropriate and regulated exercises.

Gynæcology—The study of the diseases of women.

Hæmatemesis—A vomiting of blood, not proceeding from the lungs.

Hæmaturia—The passing of blood with the urine.

Hæmoptysis—An expectoration of blood ; a symptom in lung disease.

Hæmorrhage—A flow of blood from a wound or any part of the body.

Hæmorrhoids—Bleeding vessels at the mouth of the anus.

Hare-lip—A cleft in the lip, generally in the upper lip, extending sometimes through the jaw-bone to the hard and soft palate. It is a congenital deformity.

Haustus—A draught or single dose of medicine.

Headache—Term used of pain in any part of the head. A symptom in many diseases.

Heart—A muscular cavity in the thorax, lying slightly to the left side. It is the principal agent of the circulation by its regular contraction and dilatation. It is subject to many diseases. It

is divided into four chambers : right and left auricle, and right and left ventricle.

Hectic Fever—An irregular form of fever, generally attending low debilitating diseases.

Hemicrania—A pain that affects only one side of the head.

Hemiplegia—Paralysis affecting one lateral half of the body.

Hemisphere—The two masses that form the brain are called severally hemispheres.

Hepar—The liver.

Hepatic—Belonging to the liver.

Hepatisation—A morbid change in tissue, by which it is converted into a firm texture resembling liver substance. Occurs most frequently in the lungs during pneumonia.

Hepatitis—Inflammation of the liver.

Hermaphrodite—Partaking of both sexes.

Hernia—The protruding of an organ from its place, commonly called a rupture.

Herpes—A skin disease, consisting of small vesicles, very irritable, preceded by constitutional disturbance. There are many forms, the principal being—

Herpes Zoster—Commonly called the *shingles*.

——— Circinatus—The ringworm.

——— Siccus—Dry, mealy *tetter*.

Hip—The articulation of the thigh with the pelvis.
It is subject to serious and destructive inflammatory disease.

Hirudo—A leech.

Humerus—The arm-bone, from the shoulder to the elbow.

Hydatid—A species of parasite, so called because it develops into a sac or bag containing a watery fluid; most often found in the liver. It is the larva of the tape-worm.

Hydarthros—Fluid in the joints. The knee is most subject to this disease.

Hydrargyrum—Mercury or quicksilver.

Hydrocephalus—Water on the brain. This disease assumes either an acute or chronic form; as an acute disease it is extremely fatal among children.

Hydrophobia—Canine madness, a leading symptom of which is dread of fluids: hence its name.

Hydrops—Dropsy.

Hydrothorax—Dropsy of the chest.

Hygienic—Relating to health.

Hyoides—A bone at the root of the tongue.

Hyperæmia—Congestion of blood at any part.

Hyperæsthesia—Morbid increase of sensibility.

Hypertrophy—Morbid enlargement of any organ.

Hypnotic—Conducing to sleep.

Hypochondriac—A person fanciful, imagining various ailments ; lowness of spirits.

Hypochondriac Region—The part of the abdomen under the cartilage of the false ribs.

Hypogastrium—The part of the abdomen below the stomach level, reaching from two inches below the navel to the pubes.

Hysteria—An anomalous disease, exhibiting itself in simulating nearly every form of disease ; purely imaginary ; most common to the female sex ; occurring in persons of weak minds or weak volitionary power ; generally between the ages of fourteen and forty.

Ichor—A thin, aqueous, and acrid discharge.

Ichthyosis—A skin disease, so called because it is supposed to resemble the hard scalliness of a fish.

Icterus—The jaundice. In this disease the skin and eyes become yellow, from the admixture of bile in the blood. The urine is a deep brown, and the stools grey or white. It is a very common disease in infants, and then not usually of much importance.

Idiopathic—A *primary* disease is termed idiopathic ; it means that it is not consequent upon the presence of any other disease.

Idiosyncrasy—The individual constitution or pre-

disposition, which leads it to be more prone to some diseases, and more easily affected by certain remedies.

Uleum—The last portion of the small intestine.

Ilia—The flanks.

Iliac—Belonging to or being in the region of the flanks.

Ilium—The haunch-bone.

Imperforation—The absence of an opening where it ought to be, as in the rectum or vagina.

Impetigo—A skin disease, which has small moist pustules in patches over the skin; these break, run one into the other, and form a scab. It frequently accompanies dirt and neglect, and a feeble state of health. There are many varieties of the disease.

Inanition—Starvation.

Incisors—The four front teeth of both jaws are called incisors.

Incontinence—Inability to restrain the natural evacuations.

Inflammation—Heat, pain, and swelling in a part. A valuable symptom in pointing to the part affected. Inflammation leads to suppuration.

Influenza—Epidemic catarrh.

Infra—Beneath.

Infusion—The extracting of the properties of sub-

stances by pouring on water of the required degree of temperature, and allowing it to stand a definite number of hours.

Ingesta—The food taken into the body.

Inhalation—The drawing into the lungs of the steam of warm water, or vapours charged with medicinal substances.

Injection—The throwing up of a liquid into the body ; the placing of a medicine beneath the skin by means of an instrument called a hypodermic syringe.

Innominatum Os—A large irregular bone at the side of the pelvis.

Inoculation—The insertion of poison into any part of the body.

Insanity—An unsound state of mind. Madness.

Insidious—The name given to diseases that are stealthy in their approach, and often elude the physician until they are too formidable to be grappled with.

Inspiration—The act of drawing air into the lungs.

Intercostal—The name given to muscles, vessels, &c., that lie *between* the ribs.

Intercurrent—Any disease that occurs during the course of another disease is called intercurrent.

Intermittent—That which ceases and returns at regular intervals.

Interosseous—Between the bones.

Intertrigo—A galling of the skin about the arms, axillæ, or groin. Very common in children.

Intestines—The membranous tubes that extend from the stomach to the anus, wherein the food is converted into nourishing matter. They are situated inside the abdomen, and are divided into large and small.

Intussusception—An accident that sometimes happens to the intestines, when one portion slips inside another and causes occlusion of the bowels.

Inversion—The turning any part inside out ; an accident of the womb.

Iris—The circle of the eye that surrounds the pupil, so called from its varied colouring.

Iritis—Inflammation of the iris.

Irritation—The action of a stimulus that excites a part to action or to over-action.

Ischuria—A retention of urine.

Isochronous—That which takes an equal length of time is called isochronous.

Jactitation—The constant restlessness of disease.

Jecur—The liver.

Jejunum—The second portion of the small intestine.

Jugular—Belonging to the throat.

Jugulum—The throat.

Kidneys—Two organs, situated in the lumbar region, on each side of the spine ; they secrete the urine. They are the subjects of very serious diseases.

Kleptomania—A form of insanity, that shows itself in stealing, often without a purpose or an intention to appropriate.

Labium—The lip.

Lac—Milk.

Lachrymal—Belonging to the tears (lachryma), as the gland duct, bone, nerve.

Lacteal—The absorbents of the mesentery. The fluid they absorb looks like milk.

Lamina—A thin plate or layer of any substance.

Larynx—The organ of the voice, situated behind the tongue. The larynx is subjected to many serious diseases : laryngitis, inflammation of the larynx ; laryngismus, a spasm of the muscles of the larynx, being the principal.

Laryngotomy—The operation of opening the larynx externally.

Laryngoscope—An instrument for observing the anatomy of the larynx.

Lateral—At the side.

Laxative—A gentle purge.

Lens—An important part of the eyesight.

Lepra—A term applied at one time to true leprosy, but now to some scaly diseases of the skin.

Lesion—An injury to or the morbid condition of any part.

Lethargy—A heavy, constant sleep ; a symptom in diseases of the brain.

Leucocythemia—A disease distinguished by extreme pallor, caused by the presence of an excessive number of white corpuscles in the blood.

Leuconia—A white opacity on the cornea.

Leucorrhœa—A secretion of white opaque fluid in the vagina. It is attended with constitutional disturbance.

Levator—A muscle that raises a part.

Lichen—The name of a class of skin diseases.

Ligament—An elastic, strong membrane, connecting the extremities of the bones.

Ligature—A surgical appliance, made either of silk, silver, or catgut, used for tying arteries or veins.

Linctus—A class of medicines of the consistence of honey.

Linea Alba—The median line of the trunk.

Linimentum—Liniment. A medicine used for anointing.

Lithiasis—The formation of stone or gravel.

Lithotomy—The operation of cutting into the bladder to remove the stone.

Lithotrity—The operation of crushing the stone in the bladder, so that it may be washed out with the urine.

Liver—A large organ in the abdomen, lying to the right side. Its use is to secrete bile, and it is a very important agent in the functions of digestion and assimilation. It is subject to serious disease.

Lividity—A dark bluish colour of the skin—a symptom of obstructed respiration or circulation.

Lobulus—A small lobe.

Lobus—A lobe. The divisions in an organ are called lobes, as in the lungs, liver, &c.

Lochia—The discharge that takes place after delivery.

Lordosis—Curvature of the spine forwards. The arching of the back in tetanus or hip-disease.

Lotion—An external fluid application.

Lumbago—A rheumatic affection of the muscles of the loins.

Lumbar—The region of the back at the loins is called the lumbar region.

Lumbricus—The long, round worm, sometimes found in the intestines.

Lunatic—A madman.

Lungs—Two organs inside the chest, by means of which we breathe. Roughly they may be compared to sponges, full of air instead of water, expanding and contracting with inspiration and expiration; the blood is forced through them and becomes aërated or life-sustaining blood. The lungs are liable to serious disease.

Lupus—A malignant disease of the face, which eats deeply into the tissues, completely destroying the whole structure.

Lymph—The fluid contained in the lymphatic vessels, useful in the process of assimilation.

Lymphatics—Absorbent vessels, found in every part of the body. The lymphatics and the lacteals form the absorbent system.

Macula—A spot, or discoloration of the skin.

Malaria—A poisonous atmosphere.

Malignant—A term used of fevers and growths to describe the deadly nature of the disease.

Malleolus—The terminations of the leg-bones at the ankle-joint are named respectively the internal and the external malleolus.

Malleus—A bone of the internal ear.

Mamma—The organ that secretes milk in animals, commonly called the breast.

Mammary—Belonging to or in the region of the breast.

Mania—Insanity ; madness.

Manus—The hand.

Marasmus—Wasting, accompanied with loss of power.

Marrow—A fatty substance, found in the central cavity of bones.

Mastication—The act of chewing.

Mastitis—An inflammation of the breast, most common in nursing mothers.

Mastodynia—Pain in the mamma.

Maxilla—The jaw, both upper and lower.

Meatus—A passage.

Meconium—The excrementitious substance in the large intestines of the foetus.

Median—Towards the middle line ; a term describing the situation of certain vessels, &c.

Medulla—The marrow.

Medullary—Like to marrow.

Melancholia—A form of insanity, exhibiting itself in melancholy.

Membrane—A thin, expanded substance or web, which covers or wraps up various parts of the body.

Meninges—Membranes of the brain.

Meningitis—Inflammation of the membranes of the brain and spinal cord.

Menorrhagia—An immoderate flow of the menses.

Menstruation—The periodic discharge from the womb of healthy women not pregnant. It commences between the ages of twelve and fifteen, and ceases between forty-five and fifty.

Mephitis—A poisonous smell or vapour.

Mesentery—A membrane in the cavity of the abdomen, which sustains the intestines in their place and gives them flexibility and firmness. It is supplied with veins, arteries, glands, and nerves.

Mesocolon—The portion of the mesentery to which the colon is attached.

Metacarpus—The part of the hand which is between the wrist and the fingers.

Metatasis—The change of a disease from one part to another.

Metatarsus—The part of the foot between the instep and the toes.

Miasma—A term expressing an atmosphere of disease.

Miliaria—Miliary fever; a fever that has an eruption of small red pimples. It is sometimes attended with danger.

Minim—The sixtieth part of a fluid drachm.

Mistura—A mixture.

Molecule—The smallest conceivable particle of a mass.

Mollities—A softness either of bones or nails, &c.

Molluscum—A growth on the skin of numerous tubercles, varying much in size, not tender, not inflamed or ulcerated, not inclined to disappear.

Monomania—A form of insanity on one subject only.

Morbus—Disease.

Mortification—The death of any part of the body.

Mucilage—A solution of gum.

Mucus—One of the fluids of the body secreted by the mucous membrane. It serves to lubricate the parts, and to increase their appropriate action. The mucous membrane is found lining all the passages of the body.

Muscle—The flesh. The flesh is divided into distinct portions, called muscles. They are composed of bundles of fibres, lying either alongside each other—called *rectilinear* muscle; or crossing and intersecting each other—*compound* muscle; or placed like rays—*radiating* muscle. The muscles have the power of contracting on the application of a stimulus, and so of moving the parts or limbs to which they are attached.

Myopia—Near-sightedness.

Nævus—A birth-mark or blemish.

Narcotic—A class of medicines that have the effect of allaying pain and of inducing sleep. They act by diminishing the nervous activity.

Narcotism—The effects produced by narcotics.

Nares—The nostrils.

Nasal—Belonging to the nose.

Nates—The buttocks.

Nausea—The sensation of sickness.

Necrosis—Mortification or death ; confined to diseases of the bones.

Nephralgia—Pain in the kidney.

Nephritis—Inflammation of the kidney.

Nerves—Long white cords, arising in the brain and spinal cord, which are distributed to all parts of the body. They are like telegraph wires, carrying orders from the brain and spinal cord to the members, and conveying impressions from the organs to the brain. The nerves are reckoned in pairs.

Nervous—Relating to the nerves.

Nervous System—This consists of the brain, spinal cord, the nerves arising from them, the ganglia of the nerves, and the filaments connecting them with each other.

Neuralgia—Pain in a nerve.

Neurilemma—The membranous sheath of the nerves.

Neurotomy—The division of a nerve.

Neurotic—Medicines which relieve the disorders of the nerves.

Nictitation—Winking or twinkling of the eyes.

- Nipple—The small projecting body in the breast.
- Node—A hard, circumscribed swelling on a bone, caused by a swelling of the periosteum.
- Nutrition—The complete assimilation of food.
- Nyctalopia—A defect in vision, in which the sight is feeble in the day and stronger in the evening or night.
- Nympha—Part of the female organ of generation.
- Obstetrics—Midwifery.
- Occipital—Belonging to the back part of the head.
- Occiput—The back of the head.
- Occlusion—The closing up of a passage.
- Oculus—The eye.
- Odontalgia—The tooth-ache.
- Œdema—Swelling of the cellular tissue from the presence of fluid beneath. There is also œdema of the mucous membrane.
- Œsophagus—The passage from the back of the mouth to the stomach along which the food is conveyed.
- Olecranon—The elbow.
- Olfactory—The sense or power of smelling.
- Omentum—A membrane attached to the stomach and intestines ; also called the caul.
- Onychia—A whitlow at the side of the finger-nail.
- Opacity—Any film or spot on the cornea that obstructs the sight.

Ophthalmia—Inflammation of the eye.

Ophthalmic—Relating to the eye.

Ophthalmoptosis—A protrusion of the eye-ball from its socket ; sometimes a symptom of disease in the brain.

Ophthalmoscope—An instrument for studying the internal structure of the eye.

Opiate—A medicine that induces sleep.

Opisthotonos—The curving of the spine outwards.

Optic—Relating to vision.

Orbicularis—Round ; a name that describes the shape of some of the muscles and bones.

Orbits—The two cavities under the forehead in which the eyes are placed.

Orchitis—Inflammation of the orchis, or testicle.

Organ—Any part of the body which has a definite action of its own.

Organic—Relating to the organs. Animals possessed of organs are called organic.

Organisation—The structure of animals or vegetables.

Orthopnoea—Inability to breathe whilst lying down. A symptom in diseases of the chest.

Os—A bone. There are 248 bones in the human body.

Os—A mouth ; the opening of a part.

Osmazone—The animal principle of flesh.

- Osseous—Bony.
- Ossiculum—A little bone.
- Ossification—Forming into bone.
- Osteology—The knowledge of bones.
- Osteo-sarcoma—A fleshy tumour connected with bone.
- Otalgia—The ear-ache.
- Otitis—Inflammation of the ear.
- Otorrhæa—A discharge from the ear.
- Ovarian—Belonging to the ovaria.
- Ovary—Two flat oval bodies in the female, attached to the womb, containing the egg.
- Oviduct—The passage through which the egg passes; the fallopian tube.
- Oxygen—A gas largely contained in the air and necessary for life.
- Ozæna—An ulcer in the nose, discharging purulent, foetid matter, sometimes accompanied with caries of the nasal bones.
- Pabulum—Food or aliment.
- Palate—The roof of the mouth, divided into the hard palate—the bony roof at the fore-part of the mouth—and the soft palate, which lies behind the hard, and from the middle of which the uvula hangs down.
- Palliative—That which relieves symptoms, but cannot effect a cure.

Palma—The palm of the hand.

Palmaris—Belonging to the hand.

Palmar-arch—The radial artery forms an arch in the palm of the hand, and the ulnar artery forms one more superficially. These are called the *deep* and *superficial* palmar arches.

Palpebræ—The eyelids, upper and under. Where they meet is called the canthus, outer and inner.

Pancreas—A glandular organ in the abdomen, situated near the stomach. It secretes the pancreatic juice, which aids in the digestion.

Papulæ—Pimples.

Paracentesis—The operation of letting out fluid from the chest or abdomen by tapping.

Paralysis—A disease attended by loss or diminution of voluntary power in the limbs. Paralysis may be partial, affecting one side, or one limb, or the lower half of the body; or complete, affecting the whole body. It is usually a symptom of disease of the brain, or of the spinal cord.

Paralysis Agitans—The shaking palsy. Sometimes only one limb is affected, sometimes the whole body.

Paraplegia—Paralysis of the upper or lower half of the body.

Parasite—An animal that lives *in* or *on* the body of another.

Parietes—The parts that enclose the cavities of the body are called parietes, or walls, as chest-walls, &c.

Paronychia—A whitlow or gathering on the fingers.

Parotid Gland—A large gland near the ear that secretes the saliva.

Parotitis—The mumps; inflammation of the parotid gland.

Paroxysm—A sudden and violent increase in the symptoms of any disease.

Parturition—The act of bringing forth young.

Patella—The knee-pan or cap.

Pathology—The science which treats of diseases, their nature, causes, and courses.

Pectoral—Belonging to the breast.

Pectoriloquy—A symptom in diseases of the chest, in which the voice seems to proceed immediately from the chest to the ear of the listener.

Pectus—Breast.

Pediculus—A louse; parasites which infest the skin and hair of man.

Pedicle—A foot-stalk; the stem by which some tumours are attached to the part from which they spring.

Pelvis—That part of the skeleton which encloses the lower part of the abdominal cavity; it contains the rectum, bladder, and internal organs of generation. The upper part of the

cavity is bounded by an oval bony ring, called the brim of the pelvis. The office of the pelvis is to give a firm support to the trunk, to afford a sure, steady point of attachment for the lower extremities.

Pemphigus—A disease of the skin, characterised by large or small blebs forming on the skin, containing serum like blisters. It is generally accompanied by some fever.

Penis—The external male organ of generation.

Peptic—Digestive.

Percussion—The act of striking with the fingers on the various parts of the body, to obtain a knowledge by the sound given of the locality and state of the various organs of the body. It is a valuable help to diagnosis.

Pericardium—The membrane or bag that surrounds the heart. It is subject to inflammation—Pericarditis.

Perichondrium—The membrane that covers the cartilages.

Pericranium—The membrane that lies close on the bones of the skull.

Perineum—The external space *between* the anus and the organs of generation.

Periosteum—The membrane that invests all bones in the body.

Peristaltic—The motion of the intestines, like the progression of a worm, by which they propel and expel their contents.

Peritoneum—A strong membrane that surrounds the abdomen and its organs. It keeps them in their place, and saves them from concussion and injury.

Peritonitis—Inflammation of the peritoneum. This disease may be a variety of tubercular disease, when it assumes a chronic form, under the name of tubercular peritonitis.

Peroïn—A kibe or chilblain.

Peroneus—Belonging to the fibula.

Perspiration—The vapour secreted and given off by the skin through the pores. It is highly necessary to health to maintain this function.

Pertussis—The whooping-cough.

Pes—The foot.

Pessary—An instrument, made of wood, ivory, or gutta-percha, used to support the uterus.

Pestis—The plague; a disease of a low typhoid character, endemic in some hot countries, but very rare in this.

Petechia—A red or purple spot, resembling a flea-bite. It is caused by a slight extravasation of blood beneath the skin. It is common in malignant fevers.

Peyer's Glands—The clustered mucous glands in the small intestine are so named.

Phagedæna—A rapidly spreading ulcer.

Phalanges—The small bones of the fingers and toes.

Pharmacopœia—A book containing rules for the composition of medicines.

Pharmacy—The art of preparing medicinal remedies.

Pharyngeal—Belonging to the pharynx.

Pharyngitis—Inflammation of the pharyngeal membrane.

Pharynx—The muscular bag at the back of the mouth that receives the food.

Phymosis—A constriction or straightness of the skin that covers the glans penis.

Phlebitis—Inflammation of a vein.

Phlebotomy—Opening a vein. Bleeding.

Phlegm—A viscid mucus expectorated from the lungs.

Phlegmasia Dolens—A peculiar form of inflammation of a limb, generally the leg, that most frequently attacks women after delivery.

Phlogosis—Inflammation.

Photophobia—Intolerance of light; a symptom of disease of the eye.

Photopsia—An affection of the eyes, causing the patient to see luminous rays or lines.

Phthisis—Pulmonary consumption.

Physiology—The knowledge of the laws of life.

Piles—A disease of the rectum, caused by the collection of blood in the veins. They are painful, hard swellings at the margin of the anus and in the rectum.

Pilula—A pill.

Pilus—The short hair which covers the body.

Pituitary Gland, or Body—A small body of unknown use, situated in the middle of the lower surface of the brain.

Pituitary Membrane—The membrane that lines the nostrils and secretes the mucus.

Pityriasis—A skin disease, of a dry, scaly nature, without any redness or ulceration.

Placenta—The after-birth. It is the medium through which the connection between mother and child is maintained in the womb.

Planta—The sole of the foot.

Plethora—An excess of blood in the vessels.

Pleura—The membrane which lines the inside of the thorax and covers the lungs.

Pleurisy—Inflammation of the pleura. In the acute state, it sometimes leads on to the formation of pus in the chest-walls, which, on being let out, becomes an *empyema*. When fluid is present on the left side of the chest it causes the displacement of the heart to the right side.

Pleurosthotonos—The rigid bending of the body to either side ; a form of tetanus.

Plexus—A network of blood-vessels, nerves, or absorbents. There are many in the body.

Pneumatic—Belonging to air or gas.

Pneumatoxis—The same as emphysema ; a collection of air in the cellular tissue. It is generally caused by some injury to the lung, causing a leakage of the air into the surrounding parts.

Pneumonia—Inflammation of the lung. This disease may lead on to abscess in the tissue of the lung, and gangrene.

Poison—Anything which, taken externally or internally, has the effect of destroying life, either speedily or slowly. There are many poisons which, used with discretion and care, become valuable medicines. Poisons may be taken into the body either through the mouth by swallowing, through the lungs by inhalation, through the skin, or by the anus.

Pollex—The thumb or great toe.

Polypus—A small tumour, most commonly met with in the vagina, uterus, and nose.

Pompholyx—A skin disease, having an eruption of vesicles ; the term is synonymous with pemphigus, but was once used to denote its chronic form.

- Pomum Adami—Adam's apple. The protuberance in the fore-part of the neck formed by the thyroid cartilage.
- Poples—The ham or back of the knee-joint.
- Popliteal—Belonging to the ham.
- Porrigio—A pustular skin disease, mostly of the head and face. The term has been applied to a great variety of pustular skin diseases.
- Porus—A pore. Term used for the small excretory ducts of the skin that carry off the sweat.
- Post—After ; succeeding.
- Post partum—After child-birth.
- Posterior—A relative term, describing the situation of parts one behind the other.
- Præcordia—The fore-part of the region of the thorax.
- Predisposition—That state of the body which inclines it to take certain forms of disease.
- Pregnancy—The state of child-bearing. This period generally lasts nine months from the time of conception to that of delivery.
- Prepuce—The membranous fold of skin that covers the glans penis ; the fore-skin.
- Presbyopia—A defect of vision, by which near objects are seen confusedly, but remote objects clearly.
- Prescription—The recipe or formula for compounding a remedy.

- Primary—A term which denotes the order or sequence of diseases or symptoms.
- Probang—A surgical instrument, made of flexible material, used to push away any foreign body which sticks in the oesophagus.
- Probe—A surgical instrument, used for exploring wounds.
- Process—An anatomical term, meaning the prolongation of a part.
- Prognosis—The foretelling the possible event of a disease from its symptoms.
- Prolapsus—The protrusion or falling down of the internal parts of the body. When the prolapsus is so great as that the viscus protrudes beyond the external opening it is called *procidencia*.
- Pronation—The act of turning the palm of the hand downwards.
- Prone—The posture of the body when lying quite flat; a symptom of excessive weakness in some diseases.
- Prostate Gland—A large gland, situated between the neck of the bladder and the urethra.
- Prurigo ; Pruritus—A papulous eruption. It exhibits some varieties. The disease is always accompanied by great itching of the skin.
- Psoas, or Lumbar Abscess—A large abscess, the result of disease of the spine.

Psoriasis—A skin disease, distinguished by a rough, scaly state of the cuticle, occurring in irregular patches or on a continuous surface on all parts of the body.

Psychology—The doctrine of the mind or soul.

Ptosia—A falling down of the upper eyelid.

Ptyalism—An increased secretion of saliva.

Puberty—The period of life when childhood passes into youth—from twelve to sixteen.

Pubes—The external parts of the organs of generation in the male and female.

Puerperal—Belonging to child-bearing.

Puerperal Fever—A fever peculiar to the state of child-bearing.

Pulmonary—Belonging to the lungs.

Pulsation—The beating of the pulse or of the heart.

Pulse—The action of the heart communicated to the arteries, indicative of the vital force. The pulse is usually judged of by feeling it at the wrist, though the arteries are beating all over the body.

Pulvis—A powder.

Pupil—The round opening in the iris.

Pupillaris—Belonging to the pupil.

Purgative—A medicine that increases the action of the bowels.

Puriform—Resembling pus.

Purpura—A disease which shows itself by purple spots, large or small, like bruises on the body. It is attended with great debility. There are two varieties: *P. simplex*, a mild form of the disease; and *P. hæmorrhagica*, in which the size of the spots is increased, and which is accompanied with bleeding from the nose, mouth, rectum, and bladder. This form of the disease is very serious.

Purulent—Of the nature of pus.

Pus—Matter. A greenish-white fluid, that is found in wounds, and is the result of inflammation. There is healthy or *laudable* pus and ichorous pus.

Pustule—A vesicle of various sizes containing pus.

Putrefaction—The decomposition of animal substances.

Pylorus—The inferior opening of the stomach leading into the intestines.

Pyrexia—Fever.

Quarantine—The period during which it is necessary to keep people with a suspicion of infection apart from others.

Quartan—Occurring every fourth day.

Quinsy—Inflammation of the tonsils. There are two kinds: the *phlegmonoides* and the *maligna*.

Quotidian—Every day.

Rabies—Madness. A term usually given to canine madness.

Rachis—The spine.

Rachitis—The rickets. A disease, caused by bad hygienic surroundings, in which the substance of the bones is weak and they become distorted and dwarfed.

Radial—Belonging to the radius.

Radius—One of the bones of the fore-arm, attached at the elbow and the wrist.

Raphe—A suture; applied to parts that have the appearance of a seam, as though they had been sewn together.

Rattles—A term used by nurses of the noisy breathing heard in the throat shortly before death. It is caused by the air passing through the mucus collected in the air-passages.

Rectum—The lowest portion of the large intestine, terminating in the anus.

Rectus—Straight. Some of the muscles are so called from their direction.

Reduction—In surgery, the replacing a dislocated bone.

Reflex—The action of a nerve on a part, caused by an impression propagated from the extremity of another nerve through the nervous centres.

Refrigerant—Possessed of the property of cooling the blood.

Regimen—A prescribed course of diet, medicine, and exercise, for the purpose of restoring health.

Remittent—The characteristic of some diseases to leave the patient and return, so as not to cease altogether.

Ren—The kidney.

Renal—Belonging to the kidney.

Resolution—A healthy termination of a diseased action.

Respiration—The act of taking in and giving out the air we breathe by the lungs.

Resuscitation—The act of restoring to life an apparently dead person.

Retention—The keeping back anything which ought to be passed out from the body. A symptom in several diseases.

Retina—The innermost membrane of the eye, on which are reflected the objects seen by the eye.

Retinitis—Inflammation of the *Retina*.

Retractor—A muscle which draws back the part to which it is attached.

Retroversion—Turning back ; applied to the internal organs.

Rheum—A cold in the head.

Rheumatism—A blood disease that affects either the muscles or joints of the patient. The joints

swell, are acutely tender, become stiff; the muscles become stiff and tender. The disease, when attended with fever, is known as *rheumatic fever*; it sometimes assumes a chronic form. The inflammation may affect the internal organs in severe cases, more especially the heart, which then becomes permanently injured.

Rhonchus—A creaking or wheezing sound in the air-passages. A term in auscultation. There are five kinds of rhonchi: the crepitous, the mucous, the sonorous, the sibilant, the crackling. They are all symptoms in chest diseases.

Rigid—Stiff, unbendable.

Rigor—A sudden fit of shivering. An important symptom in many diseases.

Rima—A natural fissure or opening.

Risus Sardonius—A convulsive grin, chiefly observed in nervous convulsive diseases.

Roller—A long narrow bandage.

Roseola—The rose-rash. An eruptive disease, in appearance resembling scarlatina, most common among children. As a primary disease it is not of much importance; it sometimes accompanies other inflammatory diseases.

Rotator—A muscle that rotates the part to which it is attached.

Rubefacient—Any external application which causes a redness on the skin.

Rubeola—The measles. An inflammatory disease, attended with a rose-coloured, raised rash. It sets in with coryza, drowsiness, fever, cough, and hoarseness, the rash coming out about the second or third day. The disease may leave behind it some serious mischief in the lungs, ophthalmia, or diarrhœa.

Rupia—A syphilitic disease, characterised by an eruption of vesicles on which thick conical crusts form, which fall off and leave ulcers.

Sabulous—Gritty, sandy; applied to the gravelly matters in the urine.

Saburra—Foulness of the stomach; dirt; sordes.

Sac—A bag or pouch.

Sacral—Belonging to the sacrum.

Sacrum—The lowest part of the back.

Saliva—The fluid which is secreted by the salivary glands in the mouth.

Salivation—An increased flow of saliva; very often caused by the use of some medicines.

Sanguification—A process in the body by which the chyle is converted into blood.

Sanguis—The blood.

Saphena—The large vein of the leg.

Sarcocele—A disease of the body of the testicle.

Sarcoma—A fleshy tumour.

Sartorius—One of the muscles of the thigh.

Scab—A hard substance covering the surface of ulcers, formed by the drying up of the fluid matter.

Scabies—The itch. A cutaneous eruption, caused by the presence of a minute insect beneath the skin. The disease is the result of dirt and neglect, and is propagated by contagion.

Scalenus—A muscle of the neck.

Scalp—The skin of the head.

Scalpel—A surgical knife, for dissecting, &c.

Scaphoid—One of the bones of the foot.

Scapula—The shoulder-blade.

Scapulary—Belonging to the shoulder-blade.

Scarification—The act of letting blood by the scarificator.

Scarlet Fever—A contagious fever, characterised by a scarlet eruption over the body. It commences with headache, sore throat, vomiting, and general discomfort. The kidneys often become affected in this disease, and in serious cases the poison of the disease leaves mischief in the joints and the blood.

Scirrhus—Hard cancer.

Sclerophthalmia—A painful disease of the eyes and lids; they become dry, swollen, and hard.

Sclerotic—The white outer non-transparent coat of the eye, to which in front the transparent cornea is united.

Scleroma—A hard induration of the skin.

Scorbutus—The scurvy. A disease which shows itself more especially in cold climates among sailors and soldiers, and those who are fed on salt and preserved provisions. The face is pale and bloated, spongy gums, livid spots on the skin, foul ulcers, foetid urine, hæmorrhages, and œdematous swelling of the legs. It is attended with extreme debility and emaciation.

Scrofula, or Struma—A disease of the blood, which often shows itself in swelling of the glands, inflammation, and suppuration ; sometimes in a generally debilitated constitution and a tendency to severe inflammation in the joints ; sometimes in a weakness in the internal organs. Phthisis and scrofula are allied diseases.

Scrotal—Belonging to the scrotum.

Scrotum—The common bag of integuments which covers the testicles.

Scurf—Small scales of skin from the scalp.

Scybala—Dry, hard, round particles of fœcal matter.

Sebaceous—Applied to glands that secrete a suety humour.

Secondary—Showing the order of symptoms or diseases.

Secretion—A function in a living body by which certain organs appropriate to themselves the constituents of the blood, which they arrange and use in their own special manner, and convert into a different fluid.

Sedative—A medicine that quiets the system by allaying nervous excitement.

Sediment—The heavy parts of liquid that fall to the bottom of a vessel.

Sensation—The impression made on the extremity of a nerve and conveyed to the brain.

Sensorium—The centre at which all impressions are received : the brain.

Sentient—Those parts which are most sensitive are so called.

Septum—A partition. Applied to membranes and bones that divide parts, as in the nose.

Sequestrum—The dead portion of bone, surrounded by living bone and separated by disease.

Serous—Of the nature of serum.

Serum—A constituent in the blood, resembling the whey of milk.

Sesamoid—In anatomy, a term describing the shape of several parts.

Seton—A thread of silk passed under the skin, and kept there to keep up irritation.

Sialagogue—Medicines that excite the flow of saliva.

Sigmoid—In anatomy, a term describing the shape of several parts.

Sinapism—A mustard poultice.

Sinus—A long, narrow passage, leading from some abscess or diseased bone. An anatomical term, meaning a cavity or depression.

Skeleton—The bony framework of the human body.

Sodii chloridum—Muriate of soda, common salt.

Soleus—The name of one of the muscles of the leg.

Somnambulism—Sleep-walking.

Somniferous—Inducing sleep.

Somnus—Sleep.

Soporific—Possessing the power of inducing sleep.

Sordes—The foul deposit that forms on the teeth, gums, and lips in malignant diseases.

Sound—A surgical instrument for exploring the bladder.

Sounding—The act of using the sound.

Spasmodic—Belonging to a spasm or convulsion.

Spasmus—A spasm ; an involuntary contraction of the muscular fibres. They are divided into *clonic*—spasms that alternately contract and relax ; and *tonic* spasms, in which the contraction persists.

Spatula—A flat-bladed instrument, of various uses.

Specific—A remedy that acts on some particular function or that cures some particular disease.

Speculum—A funnel-shaped instrument, for viewing internal parts or distending their openings.

Spermatic—Belonging to the testicle and ovary.

Spermatocele—A swelling of the spermatic cord.

Spheroma—A fleshy globular swelling.

Sphenoid—One of the bones of the skull.

Sphincter—The name of the muscles that surround and control the openings in the body. There are several in the body.

Sphygmograph—An instrument for recording the pulse.

Sphygmus—The pulse.

Spinal—Belonging to the spine, or vertebra.

Spiral—Twisted like a corkscrew.

Spiritus—A spirit.

Splanchnic—Belonging to the entrails.

Spleen—A cake-shaped organ in the abdomen, lying on the left side under the stomach ; its use is obscure.

Splenitic—Belonging to the spleen.

Splenitis—Inflammation of the spleen.

Splint—A mechanical surgical appliance, made of wood, iron, &c., for the support and fixing of diseased limbs.

Sporadic—Diseases springing from local causes, that affect only the individual and are not epidemic, are called sporadic.

Sputum—The matter expectorated by the mouth.

The examination of the sputum is a valuable aid in the diagnosis of chest diseases.

Squama—A scale or lamina of the skin.

Squamous—Scaly. Portions of bones which overlie other bones are called squamous.

Staff—A grooved steel instrument, used in the operation of cutting for stone.

Stamina—The strength or vital power of the constitution.

Stapes—A bone of the internal ear, so called from its likeness to a stirrup.

Staphyloma—A disease of the eye-ball, in which the cornea becomes opaque and projects beyond the margin of the eye.

Sterility—The absence of the power to beget or bear a child.

Sternum—The breast-bone.

Stertor—Noisy breathing. A symptom in apoplexy.

Stethoscope—A tubular instrument, used for listening to the sounds in the chest or abdomen.

Stigma—A small red speck or mark on the skin.

Stimulant—That which has the power of exciting the vital force, or energy.

Stimulus—That which excites the action of any part.

Stomach—A membranous bag to receive the food ; it lies on the left side in the abdomen, under

the heart. It has two openings: the cardia, where the œsophagus ends; and the pylorus, where the intestine begins. The stomach is furnished with numerous nerves, arteries, and glands. Its use is to excite hunger, partly thirst, and to receive the food from the œsophagus.

Strabismus—Squinting, called external or internal according to the direction of the eye. A symptom in diseases of the brain.

Strangury—A difficulty in passing urine.

Stricture—A diminution or contraction in the size of some duct or tube in the body.

Stridor Dentium—Grinding of the teeth. A symptom in children of worms or of brain disease.

Struma—The same as scrofula.

Stupor—Insensibility.

Stupe—A piece of cloth soaked in warm liquid for a fomentation.

Stuttering—An interrupted and intermittent hesitation in utterance.

Styptic—A substance that has the power of controlling or stopping hæmorrhages.

Subclavian—That which passes under the clavicle.

Subcutaneous—Under the skin.

Sublingual—Under the tongue.

Sub-scapularis—Infra-scapularis; under the shoulder-blade. The name of a muscle of the shoulders.

Sudamina—Small vesicles, like millet seeds, that appear suddenly on the skin, without fever, caused by sweating.

Sudor—Sweat or perspiration.

Sudorific—That which induces sweat; synonymous with diaphoretic.

Suffusion—The pouring out of some fluid or humour; the eyes are suffused when they are blood-shot.

Supercilium—The eye-brow.

Supination—The act of turning the palm of the hand upwards.

Supinator—The muscles that turn the palm upwards.

Suppositorinum—A medicinal substance, introduced into the rectum.

Suppuration—The formation of pus.

Supra—That which is situated above another.

Suspensorium—A bandage, or bag, to suspend a part.

Suture—A thread of silk, catgut, or silver, which unites the lips of a wound. The mark of the union of bones is called a suture.

Sycosis—An eruption on the skin of inflamed tubercles, occurring on the bearded portions of the face and on the scalp.

Symblepharum—A growing together of the eyelid and the globe.

Symmetrical—The correspondence of parts or organs on either side of the body ; also the correspondence of disease on pairs of limbs and muscles.

Sympathy—The relation of different organs to each other, so that action excited in the one is participated in by the others.

Symptom—The sign of a disease—the deviation of some function of the body from its healthy action.

Syncope—Fainting or swooning.

Synechia—A growing together of the iris with the cornea.

Synizesis—Closed pupil. A complete growing together of the iris, obliterating the pupil.

Synovia—A fluid secreted by the synovial membrane which lines the joints, for the purpose of lubricating them.

Synthesis—A combination.

Syphilis—A disease of the blood, caused by the introduction of morbid matter into it ; the result of sexual debauchery and prostitution.

Systole—The contraction of the heart.

Tabes—A wasting away, characterised by weakness and fever.

Tabes Mesenterica—A scrofulous affection of the mesenteric glands.

Tabes Dorsalis—A disease of the spinal marrow, not of frequent occurrence.

Tabes Pulmonalis—Pulmonary consumption.

Tænia—The tape-worm, an intestinal parasite, long and flat like a tape, divided into segments.

Taliacotian operation—A plastic operation for making a new nose ; so named after the inventor.

Tarsus—The instep.

Teeth—Small bones fixed in the gums for the purpose of mastication, usually thirty-two in number in the adult, sixteen in either jaw. They are divided into incisors—four teeth in the front of each jaw ; canines—two teeth on each side the incisors ; and molars—ten in each jaw.

Temperature—A definite degree of sensible heat, measured by an instrument called a thermometer. The ordinary heat of the human body is about 98° Fahr.

Temple—The lateral parts of the forehead.

Temporal—Belonging to the temple.

Tendon—The white and glistening end of a muscle, by which it is attached to the bone.

Tenesmus—A continual desire to evacuate the bowels, without any discharge and accompanied by straining. A symptom in some diseases.

Tensor—A muscle which extends the part to which it is fixed.

- Tent—A roll of lint, sponge, or seaweed, used for dilating an opening.
- Tenaculum—A hooked surgical instrument for catching hold of an artery or a piece of muscle.
- Teres—An anatomical name, meaning round or cylindrical.
- Test—A chemical term, used of any substance employed in detecting the existence of another substance.
- Testis—The testicle. Two little oval bodies within the scrotum; part of the male organ of generation.
- Tetanus—A spasm with rigidity. A symptom in some diseases of the nervous system and in some forms of poisoning.
- Thalamus—A part of the brain.
- Therapeutics—The science of healing.
- Thermometer—An instrument for measuring the degrees of heat.
- Thirst—The sensation caused by a desire to drink. A symptom in fevers and in diseases of the kidneys.
- Thoracic—Belonging to the thorax or chest.
- Thorax—One of the large cavities in the body, containing the lungs and heart.
- Thrombosis—A small blood-clot in the cellular tissue, surrounding a vein.

Thymus—One of the glands of the body, situated in the front of the neck.

Thyroid—The name of one of the cartilages of the throat; Adam's apple; and also of a gland seated immediately in front of it. Enlargement of this gland constitutes Goitre, or Derbyshire neck.

Tibia—The shin-bone, the largest bone of the leg.

Tic Doloureux—Facial neuralgia.

Tinea-capitis—The scald-head, or ring-worm.

Tissue—The interwoven textures which compose the different organs.

Toe—The fingers of the feet. They consist of three distinct bones.

Tongue—The soft, fleshy body inside the mouth; the organ of taste.

Tonic—A medicine to strengthen or give tone. A continued rigid contraction of the muscles is called a tonic spasm.

Tonsils—Two soft, fleshy bodies situated on each side of the throat, at the entrance of the pharynx.

Tonsillitis—Inflammation of the tonsils. There are several varieties of this disease.

Topical—Medicines applied to a particular part.

Torpor—Numbness or deficient sensation.

Torticollis—Wry-neck.

Tourniquet—An instrument to stop the flow of blood by pressure.

Trachea—The wind-pipe ; it is a membranous, cartilaginous canal for the passage of air into the lungs.

Tracheotomy—The operation of opening the trachea.

Tracheitis—Croup ; inflammation of the trachea.

Transfusion—The operation of passing blood from the veins of one living animal to those of another by means of an appropriate instrument.

Transudation—The oozing out through the cells or pores of anything.

Transversalis—An anatomical term of some muscles, describing their direction.

Trapezium—A bone in the hand.

Trapezius—A muscle of the neck.

Traumatic—Caused by an injury.

Tremor—Trembling.

Trephine—A surgical instrument for removing a circular piece of the skull.

Triceps—Three-headed ; the name of some of the muscles.

Tricuspid—Three-pointed. The name of a valve of the heart.

Trismus—Lock-jaw.

Trocar—An instrument used for tapping.

Trochanter—Part of the thigh-bone.

Trunk—The body, exclusive of its members.

Truss—A bandage for the keeping in place of a rupture.

Tubercle—A morbid product, occurring in different parts of the body in connection with some constitutional taint.

Tumour—An abnormal growth ; divided into malignant and non-malignant.

Tunic—A membrane or covering.

Tussis—A cough.

Tympanites—An elastic distension of the abdomen, from air, giving forth a hollow sound like a drum on percussion.

Tympanum—The drum of the ear.

Typhoid Fever—A zymotic disease ; the result of a definite poison introduced into the system, characterised by intestinal disturbance, great prostration, an eruption of isolated rose-coloured spots on the trunk, and extreme emaciation.

Typhus Fever—One of the zymotic diseases. A fever peculiar to dense, ill-ventilated habitations, induced by poverty and bad air. There is an eruption of small brown spots on the skin, which, in the serious form, run into livid blotches ; great prostration, quick pulse, and mental disturbance. It is infectious.

Ulcer—A sore on any of the soft parts of the body, secreting pus, and with a tendency to spread laterally and downwards. Ulcers are divided into local and constitutional; and the local again into simple, irritable, indolent, and specific.

Ulna—The larger bone of the fore-arm.

Ulnar—Belonging to the ulna.

Umbilicus—The navel.

Umbilical—Belonging to or in the region of the umbilicus.

Unciform Bone—One of the bones of the wrist.

Unguentum—An ointment.

Unguis—The nail.

Unilateral—On one side only.

Urea—A constituent of urine; the salt which gives it its high specific gravity.

Ureter—A membranous tube attached to each kidney, which conveys the urine into the bladder.

Urethra—The canal through which the urine passes from the bladder when discharged from the body.

Urethritis—Inflammation of the urethra.

Urine—The liquid secreted by the kidneys and retained in the bladder until expelled in the act of micturition. The character and quantity

of the urine is a valuable indication in many diseases.

Urticaria—The nettle-rash.

Uterus—The womb ; situated in the female abdominal cavity.

Uterine—Belonging to the womb.

Uvula—The small fleshy body hanging down from the soft palate at the back of the mouth.

Vaccination—The operation of inserting matter to produce cow pox as a preservative from small pox.

Vagina—The anatomical name of the female passage leading into the uterus.

Vaginal—Belonging to the vagina.

Valgus—Flat-footedness. When considerable, sole of foot is turned upwards and outwards, and patient walks on inner angle. Seldom congenital.

Valve—A membranous fold, which acts like a door, giving free passage to the fluid in one direction, but preventing its return. There are valves in the heart, in the intestines, veins, and arteries.

Varicella—The chicken pox. A contagious fever, attended with eruption of vesicles, which appears about the third day. It is rarely serious.

Varicocele—A swelling of the veins of the scrotum.

Varicose Veins—A disease of the veins, chiefly of the legs, by which they become distended, enlarged, twisted, and knotted, owing to the valves being insufficient, so impeding the circulation of the blood through them.

Variola—The small pox. A highly contagious and dangerous disease, attended with fever, and an eruption of pimples about the fourth day, which change into pustules, and die away about the eighth day.

Varus—Club-foot; heel is drawn up, and sole of foot turned upwards and inwards; patient walks on outer angle. Usually congenital.

Vas—A vessel or tube, as the arteries or veins.

Vastus—The name given to certain muscles of the thigh.

Vein—A long membranous tube. The veins return the blood to the heart; they do not pulsate; the blood they contain is of a dark purple.

Velum Palati—The soft palate.

Vena—A vein.

Venesection—The operation of opening a vein for bleeding.

Venereal—Belonging to sexual intercourse.

Venter—The belly.

Ventricle—Two of the cavities in the heart and four in the brain are so called.

Vermiform—Worm-like ; two of the processes in the brain are so named ; and a small narrow blind pouch which springs from the cæcum, or head of the large intestine, is called the vermiform appendix.

Vermifuge—A medicine used to expel worms.

Vertebræ—The spinal column, made up of twenty-four bones.

Vertebral—Belonging to the spine.

Vertex—The top of the head.

Vesica—A bladder.

Vesicatorius—That which has the property of raising a blister.

Vesicle—A small bladder of the skin, containing fluid.

Vestibule—A cavity of the internal ear.

Vinum—Wine.

Virus—A poison. Any matter capable of producing disease.

Vis-a-tergo—A medical term, describing force or power from behind, applied to the action of the heart.

Viscid—Thick, glutinous, of the nature of syrup.

Viscus—Any internal organ.

Viscera—The several organs contained in the three great cavities are called the viscera.

Vision—The function of the eye ; the power which enables us to see objects, to judge of their size, distance, colour, and shape.

- Vitreous Humour—The transparent substance which fills the globe of the eye.
- Vocal Chords—Two ligaments which lie on each side of the larynx, and form part of the organ of the voice.
- Voluntary—Done by design.
- Vomer—The small, thin bone which separates the nostrils from each other.
- Vomiting—The act of ejecting food from the stomach by the œsophagus and mouth. The substance ejected is called the vomit.
- Vomica—An abscess in the lungs.
- Vulva—The anatomical name for the external organs of generation in the female.
- Wheal—A raised mark on the skin, like that caused by the stroke of a cane.
- Wheezing—A noisy respiration, caused by obstruction in the air-passages.
- Wound—A damage done to the soft parts of the body, caused by external injury.
- Wry-neck—A turning of the head to one side or the other, permanently. A symptom in paralysis.
- Xerophthalmia—A *dry* inflammation of the eye.
- Xiphoid—Another name for the ensiform cartilage.
- Yaws—An African disease.
- Yellow Fever—A remittent fever, indigenous in tropical countries.

Zero—The point on the thermometer at which the graduation commences. The word signifies O or cipher.

Zygoma—A bony ridge in the cheek.

Zymotic—A term characterising that class of diseases which are contagious, infectious, epidemic, and endemic. From a Greek word signifying to ferment.

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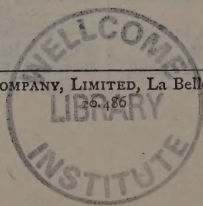
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